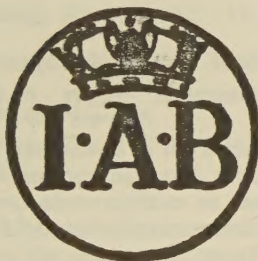


HELMINTHOLOGICAL ABSTRACTS

incorporating
BIBLIOGRAPHY OF HELMINTHOLOGY
For the Year 1943.



IMPERIAL BUREAU OF AGRICULTURAL PARASITOLOGY
(HELMINTHOLOGY)

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HELMINTHOLOGICAL
ABSTRACTS

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FOR THE YEAR 1943.

Vol. XII, Part 5.

258—Actualidad Médica Mundial.

- *a. GOÑI MORENO, I., 1943.—“Algunos aspectos clínico-radiológicos de la hidatidosis pulmonar.” 13, 124, 191.

259—Állatorvosi Lapok.

- *a. VAJDA, T., 1943.—“Anreicherung von Parasiteneiern mit Rubycin, einem Glycerin-Ersatzmittel.” 66, 88.

(259a) Vajda recommends rubycin, a glutinous fluid used in the textile industry (specific gravity 1.219), as a substitute for glycerine for concentrating parasite ova. Disadvantages are that the number of eggs recovered is slightly lower, and that the structure of the eggs is less clearly seen. [From an abstract in Dtsch. tierärztl. Wschr. Tierärztl. Rdsch., 52/50, 34.]

A.E.F.

260—American Journal of Clinical Pathology.

- *a. GOULD, S. E., 1943.—“Pathology of trichinosis.” 13, 627-643.

261—American Journal of Roentgenology and Radium Therapy.

- a. KRAUSE, G. R. & CRILLY, J. A., 1943.—“Roentgenologic changes in small intestine in the presence of the hookworm.” 49 (6), 719-730.

(261a) The presence of *Necator americanus* in the intestine induces the development of the clinical entity usually known as “deficiency pattern”, which can be seen in roentgenograms. Of 97 patients examined, 44 showed abnormalities in the intestine and in 26 of these the abnormalities were far advanced. After anthelmintic treatment, however, there was a return towards normality and in some cases the return was complete.

P.A.C.

262—Anais do Instituto de Medicina Tropical, Lisboa.

- a. PITTA SIMÕES, J. M. & HILL, R. B., 1943.—“Resultado dum inquérito sobre a infestação, por helmintas, das creanças de Águas de Moura.” 1 (1), 97-104. [English & French summaries p. 103.]
b. AZEVEDO, J. F. DE, 1943.—“On the presence of *Dipetalonema dracunculoides* (Cobbold 1870) among dogs in Portugal. Contribution to the study of its morphology.” 1 (1), 105-114.
c. CAMBOURNAC, F. J. C. & PITTA SIMÕES, J. M., 1943.—“Sobre a frequência da infestação dos cães, por *Dirofilaria immitis* Leidy, em Águas de Moura.” 1 (1), 115-125.

(262a) Children in the district Águas de Moura (Portugal) were examined for helminths by Pitta Simões & Hill. *Hymenolepis nana* was the most common parasite, closely followed in frequency by *Trichuris trichiura*. There were 2 cases of *Enterobius vermicularis* and one of *Ascaris lumbricoides*. More than one species of helminth was met with in 4 children. P.A.C.

(262b) Azevedo records the presence of *Dipetalonema dracunculoides* for the first time in Europe. It occurred in the peritoneal cavity of a dog in Lisbon. *Dirofilaria immitis* is endemic in dogs in this region but the microfilariae of the two species can be differentiated by their measurements and shape posteriorly, and by the structure of the central body. P.A.C.

(262c) A small survey of dogs in Águas de Moura showed rather more than half to be infested with *Dirofilaria immitis*, as evidenced by the finding of microfilariae in the peripheral blood. A slightly lower percentage of positives was found in Herdade do Pinheiro. The insect vector is available in the district. P.A.C.

* Titles so marked throughout this number have not been seen in the original.

263—Anais Paulistas de Medicina e Cirurgia.

- *a. AMARAL, A. D. F. DO, 1943.—“Contribuição do laboratório para o diagnóstico das colites produzidas por zoo-parasitas.” 45 (5), 363-364.
 *b. LOPES, M., 1943.—“Ileo por obstrução causado por *Ascaris lumbricoides*.” 46, 35-41.

264—Anales del Instituto de Biología.

- a. CABALLERO Y C., E., 1943.—“Algunas especies de tremátodos de los murciélagos de la region de Izúcar de Matamoros, Pue. V.” 14 (2), 423-430. [English summary p. 430.]
 b. CABALLERO Y C., E., 1943.—“Nemátodos de los murciélagos de México. IV. Descripción de una nueva especie del género *Rictularia* y breves consideraciones sobre la sistematica de las especies comprendidas en este género.” 14 (2), 431-438. [English summary p. 437.]
 c. BRAVO H., M., 1943.—“Tremátodos parásitos de las culebras *Thamnophis angustirostris melanogaster* de agua dulce.” 14 (2), 491-497.
 d. LARIOS, I., 1943.—“Dos especies de tremátodos encontrados en el aparato digestivo de aves acuáticas migratorias.” 14 (2), 499-506. [English summary p. 506.]
 e. CERECERO, M. C., 1943.—“Algunos tremátodos de las ratas domésticas de la Ciudad de México.” 14 (2), 507-526. [English summary p. 525.]
 f. CABALLERO Y C., E. & CERECERO, M.C., 1943.—“Nemátodos de los reptiles de México. VIII. Descripción de tres nuevas especies.” 14 (2), 527-539. [English summary p. 538.]

(264a) *Prosthodendrium paemosum* n.sp., which differs from *P. scabra* and *P. naviculum* in size and relation of suckers, position of ovary and shape of the vitellaria, occurs in *Balantiopteryx ochoterenai*. *P. (Paraleitho lendum) tetralobulatum* n.sp. differs from *P. nokomis* in position and outline of the ovary. It differs from the other species of the genus in that the ovary is post-acetabular and post-testicular. R.T.L.

(264b) *Rictularia nana* n.sp. occurs in *Balantiopteryx ochoterenai* and differs from all other species of the genus in its buccal capsule, the number of combs and spines, the position of the vulva, the genital papillae and the size of the spicules. The female is less than 15 mm. long. This is the first record of a *Rictularia* in Mexico. R.T.L.

(264c) *Renifer brevicoccus* and *Telorchis thamnophidis*, which were described by Caballero in 1941, are redescribed and illustrated. They occurred in *Thamnophis angustirostris melanogaster*. R.T.L.

(264d) *Leucochloridium insigne* (Looss, 1899) from *Querquedula discors*, and *Notocotylus pacifera* from *Fulica americana* are redescribed. Although the sporocysts of *L. insigne* were reported in 1922 in the United States this is the first time that the adult has been found in the American continent. R.T.L.

(264e) *Euparyphium ochoterenai* n.sp. and *Fibricola caballeroi* n.sp. are described from *Rattus norvegicus* in Mexico. The former is compared with *E. malayanum*, *E. murinum* and *E. longitestis*, while the latter is shown to differ from all other members of the genus in length and width of body, in length of the holdfast organ, in the absence of an oesophagus, and in the size and number of the eggs. R.T.L.

(264f) *Capillaria xochimilcensis* n.sp., *Macracis prolixa* n.sp., and *Spiroxys triretrodens* n.sp. are described from Mexican reptiles and differentiated from allied species. R.T.L.

265—Annales de Parasitologie Humaine et Comparée.

- a. PIROT, R. & BOURGAIN, M., 1943.—“*Moniliformis moniliformis*, rencontré à Toulon dans l'intestin des muridés des navires de guerre.” 19 (4/6), 124-128.
 b. DESPORTES, C., 1943.—“Un curieux nématode, *Heligmosomum costellatum* (Dujardin 1845).” 19 (4/6), 160-167.

(265b) Desportes describes a curious torsion in the posterior part of the body of *Heligmosomum costellatum* giving a secondary symmetry at 90° to the normal axis of the body. The torsion is complete in the female, less so in the male. He is of the opinion that *H. halli* is a synonym of *H. costellatum*. P.A.C.

266—Annali d'Igiene.

- *a. FERRARO, F., 1943.—“Azione dei sulfamidici su alcuni elminti.” 53, 445.

(266a) Sulphapyridine and sulphamethylthiazole killed *Strongylus equinus* in 20% solution in 1 hour, and in 2% and 10% solutions in 6 hours. Sulphapyridine had the same effect on *Turbatrix aceti*, but sulphamethylthiazole gave less clear results with this nematode. [From an abstract in Dtsch. Tropenmed. Z., 47, 171.]

A.E.F.

267—Annals of the New York Academy of Sciences.

- a. STUNKARD, H. W., 1943.—“Introduction to the conference on parasitic diseases.” 44, 191-194.
- b. STOLL, N. R., 1943.—“Changed viewpoints on helminthic disease: World War I vs. World War II.” 44, 207-224. [Discussion p. 224.]
- c. MATHESON, R., 1943.—“Arthropods as vectors of human diseases with special reference to the present war.” 44, 225-250. [Discussion pp. 249-250.]
- d. MACKIE, T. T., 1943.—“Clinical features of parasitic diseases and their consideration in military and naval operations.” 44, 251-261. [Discussion pp. 260-261.]

268—Archiv für Experimentelle Pathologie und Pharmakologie.

- *a. OELKERS, H. A. & ZESSLER, H., 1943.—“Pharmakologische Untersuchungen an Oxyuren.” 200, 518-527.

269—Archivos de Medicina Infantil.

- *a. VAZQUEZ PAUSA, A., SELLEK AZZI, A., INCLAN SANDOVAL, A. & GARCIA VAZQUEZ, M., 1943.—“*Fasciola hepatica*: reporte del primer caso observado en Cuba en un niño.” 12, 163-170.

270—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

- *a. GRANA, A. & TORRES, L. A., 1943.—“Reacciones serológicas de la sífilis falsas positivas transitorias, en el quiste hidático abierto del pulmón.” 22 (3), 202-207.
- *b. LARGHERO YBARZ, P., 1943.—“Quiste hidático del pulmón; 40 observaciones personales.” 22 (3), 255-268.
- c. GRANA, A. & BAZZANO, H. R., 1943.—“Hidroneumotórax hidático; algunas observaciones clínicas y biológicas.” 22 (4), 320-324.
- d. CHIFFLET, A. & SUIFFET, W., 1943.—“Quiste hidático abierto en vías digestivas.” 22 (4), 392-405.
- e. GRANA, A., RECARTE, P. & BALEA, E., 1943.—“La histaminemia en la hidatidosis y en los cuadros dolorosos paroxísticos.” 23 (4), 318-322.
- f. GRANA, A., 1943.—“Acción del tratamiento biológico de la hidatidosis y la llamoda ‘seudolitis de origen hidático’.” 23 (5), 462-471.
- g. VARELA FUENTES, B., CORONEL, J. A. & RUBIRA, N., 1943.—“Particularidades de la ictericia, en el quiste hidático abierto en vías biliares.” 23 (5), 488-502.
- h. TALICE, R. V. & FIANDRA, O. A., 1943.—“Estudios sobre la triquinosis. I. Primeros hallazgos en el Uruguay de triquinas en cadáveres humanos.” 23 (6), 521-534.
- i. TALICE, R. V., 1943.—“Estudios sobre la triquinosis. II. Constituye la triquinosis un problema médico-higiénico en el Uruguay?” 23 (6), 535-553.

(270h) Talice & Fiandra examined the diaphragms of 100 unselected human cadavers in Montevideo, using the artificial digestion method: 3 were positive for *Trichinella*. The authors consider that infection is likely to be more common in rural areas and that the incidence for Uruguay as a whole will be found to be higher than 3%.

A.E.F.

(270i) The only published records of trichinelliasis in man in Uruguay [apart from that dealt with in the preceding abstract] concern an outbreak in 1918 confined to one family, and another in 1941 affecting 45 persons. Talice adds a series of 9 suspected cases, 6 of which were positive to the Bachman intradermal test. *Trichinella* was first reported from the pig in Uruguay in 1911: from incomplete figures available for slaughter-houses covering the years 1913 to 1924 it is estimated that the incidence was about 0.14%. Since 1924 no infections in pigs have been recorded, but it is pointed out that some pigs are not subjected to inspection, and further that the technique used would probably not reveal light infections. The fact that a 3% infection has been found in man shows that pigs are also infected, probably something under 1.0%. All of 17 rats examined in the district involved in the 1941 outbreak were negative. A heavy infection in a cat has been reported, but it is not clear whether this was acquired

naturally or experimentally. Talice recommends the following preventive measures: (i) wider and more thorough inspection of pigs; (ii) more detailed investigation of the disease in man; (iii) a propaganda campaign (especially in rural areas) emphasizing the dangers of eating raw or insufficiently cooked pork; and (iv) examination of rats in pig-breeding areas. A.E.F.

271—Arquivos da Escola Superior de Veterinária do Estado de Minas Gerais.

- a. RANGEL, N. M. & MACHADO, A. V., 1943.—“*Tamerlania bragai*, gôta visceral e sarcoma fusocelular do rim em *Gallus domesticus*.” 1, 157–160. [English summary p. 159.]

(271a) Rangel & Machado report an infestation of *Tamerlania bragai* in the right kidney of a fowl, associated with a sarcoma. This is the first record of this parasite from the State of Minas Gerais. Attention is drawn to the possible cancerigenic action of *T. bragai*. A.E.F.

272—Arquivos do Instituto Biológico. São Paulo.

- a. CUOCOLO, R., 1943.—“*Pereiraia* n.g., para o *Physiocephalus lassancei* Trav., 1921 (Nematoda: Spiruridae), com redescritção da espécie-tipo.” 14, 213–216. [English summary p. 216.]
 b. MELLO, M. J. & CUOCOLO, R., 1943.—“Técnica para o xenodiagnóstico da habronemose gástrica dos equídeos.” 14, 217–226. [English summary p. 225.]
 c. MELLO, M. J. & CUOCOLO, R., 1943.—“Alguns aspetos das relações do *Habronema muscae* (Carter, 1861) com a mosca doméstica.” 14, 227–234. [English summary pp. 232–233.]

(272b) Mello & Cuocolo have elaborated a technique for the identification of *Habronema* infestation in equines which does not involve direct faecal examination. Eggs of the house-fly are allowed to develop in contact with the suspected faeces: if eggs of *Habronema* are present, infective larvae will be found parasitizing the flies which develop. P.A.C.

(272c) Larvae of house-flies may become infected with *Habronema muscae* as early as the second larval day—the fat body being the organ affected. When the larva pupates, the affected cells are destroyed and the parasite is contained in a cyst from which they hatch as the host metamorphoses. During the next 2 or 3 days they migrate from the abdomen, through the thorax, to the head. P.A.C.

273—Berliner und Münchener Tierärztliche Wochenschrift.

- a. SCHÜTZLER, G., 1943.—“Erfahrungen mit ‘Tetra-Spezial’ zur Behandlung des Spulwurmbefalles beim Pferde.” Jahrg. 1943 (11/12), 74–75.
 b. JIRINA, K., 1943.—“Ueber die Cysticerkose der Kaninchen.” Jahrg. 1943 (31/32), 261–262.
 c. BUGGE, G., 1943.—“Entwickeln sich die Trichinen in den Muskelfasern oder in den Kapillaren?” Jahrg. 1943 (41/42), 359–362.

(273a) Schützler reports that “Tetra-Spezial” (containing 88% carbon tetrachloride) is effective against ascarids in horses. The dosage is 10 c.c. per 50 kg. body-weight in 3 to 4 litres of water, administered by naso-pharyngeal sound. From one horse 331 ascarids were removed by this treatment. A.E.F.

(273b) Jiřina reports that 85% of 503 rabbits from the neighbourhood of Prague were infected with *Cysticercus pisiformis*. In 2 cases the parasite was found in the subcutaneous connective tissue of the abdomen, near the navel. The paper includes a brief general account of *C. pisiformis* infection in the rabbit. A.E.F.

(273c) Bugge’s paper is mainly a criticism of a statement made by Bongert in 1932 [Neue Deutsche Klinik, 10, 558–589] that *Trichinella* larvae develop in the muscle capillaries, and that they do not penetrate the primitive muscle fibres. Even if this were so—which Bugge by no means admits—the well-established fact that larvae develop in the muscle fibres could not be affected. A.E.F.

274—Biological Bulletin.

- a. BRAND, T. VON, 1943.—“Physiological observations upon a larval Eustrongylides. IV. Influence of temperature, pH and inorganic ions upon the oxygen consumption.” 84 (2), 148–156.
 b. STUNKARD, H. W., 1943.—“The morphology and life history of the digenetic trematode, *Zoogonoides leavis* Linton, 1940.” 85 (3), 227–237.

(274a) Von Brand, investigating the respiratory metabolism of a larval Eustrongylides, found that its temperature tolerance was very great, 48°C. being the minimum temperature injurious to it. Below this temperature the increase in oxygen consumption with rising temperature could be expressed by two lines if the Q_{10} were calculated or Arrhenius' formula used; Bělehrádek's formula resulted in a curve approximating closely with a straight line. Between values of 3.8 and 8.3 the oxygen consumption seemed independent of pH, but at values outside this range it was increased. The effect of different inorganic substances in isotonic solutions was investigated and different anions and cations in their order of stimulation are set out. D.F.

(274b) Stunkard has redescribed *Zoogonoides laevis* Linton from the fish *Tautoga onitis*, and has made experimental studies on the life-history in the Woods Hole region. While miracidia are not obviously attracted by the snail *Columbella lunata* they evidently enter it by the respiratory current, and develop into sporocysts in the haemocoel; these grow very slowly, but eventually young cercariae are liberated from daughter sporocysts and continue development in the lymph spaces, only a few escaping from the snail each day. The tailless cercariae have a simple stylet and adhesive posterior region; they are attracted by, and actively penetrate, *Nereis virens*, in which they continue to grow after encystment, though they are capable of infecting *Tautoga* after only 3 days. Attention is drawn to some discrepancies in the descriptions of the genotype, *Zoogonoides viviparus* (Olsson), from Europe. N.G.S.

275—Boletim. Instituto de Biologia e Pesquisas Tecnológicas, Paraná.

a. GIOVANNONI, M., 1943.—“Principais parasitoses dos equinos.” No. 6, 57 pp.

(275a) Giovannoni discusses the principal parasitic diseases of the horse, a short description of each parasite being given, together with remarks on distribution, symptomatology, diagnosis, treatment and prevention. The helminths dealt with are the cestodes *Anoplocephala magna* and *A. perfoliata*, and the nematodes *Parascaris equorum*, *Onchocerca reticulata*, *Setaria equina*, *S. labiato-papillosa*, *Habronema megastoma*, *Strongylus equinus*, *S. vulgaris*, and *Trichonema tetracanthum*. P.A.C.

276—Boletim do Sanatório. São Lucas.

*a. MOURÃO, B. M., 1943.—“Sub-alimentação e verminoses no pênfigo tropical (fogo selvagem).” 5 (1), 3-12.

(276a) Hookworm or Strongyloides infections may predispose to attacks of pemphigus. It is noted that an eosinophilia may be present in cases of pemphigus without helminth infection. [From Biol. Abstr., 18, Abstract No. 3750.] R.T.L.

277—Boletín del Departamento de Salubridad Pública. México.

*a. GONZÁLEZ RIVERA, M., 1943.—“Onchocercosis, oncocercosis u oncocerciasis?” 6, 331-336.

278—Boletín de los Hospitales. Caracas.

a. LÓPEZ, L. E., 1943.—“Hidatidosis renal.” 42 (3), 110-115.

279—Boletín del Laboratorio de Estudios Médicos y Biológicos.

a. NIETO, D., 1943.—“Sobre la histopatología de la cisticercosis cerebral.” 2 (3), 73-82.

280—Boletín Mensual. Dirección de Ganadería, Montevideo.

a. CASSAMAGNAGHI, A., 1943.—“*Gongylonema pulchrum* en los bovinos y ovinos del país.” 27 (2), 220-224.

b. BERTULLO, V. H., 1943.—“Hepatitis cisticercosa de los lechones ocasionada por el *C. tenuicollis* de la *T. marginata*. (1.ª Comunicación).” 27 (4), 429-434.

(280a) Cassamagnaghi redescribes *Gongylonema pulchrum* which occurs in various ungulates in Uruguay and is carried by *Blattella germanica*. P.A.C.

(280b) Infection of the livers of sucking pigs with *Cysticercus tenuicollis* is very frequent, causing interstitial hepatitis. Tissue cells are destroyed, haemorrhage is severe, and fibrosis very marked. An average of nearly 80% of livers are affected. P.A.C.

281—Boletín Sanitario de Guatemala.

- *a. ANON, 1943.—“Acta final de la Conferencia Preliminar de la Oncocercosis convocada por la Oficina Sanitaria Panamericana y celebrada en la ciudad de México del 21 al 30 de enero de 1943.” 14, 22-33.
- *b. DÍAZ A., F., 1943.—“Oncocerciasis de Robles.” 14, 118-125.
- *c. PADILLA B., E., 1943.—“Primeras investigaciones de *Trichinella spiralis* en Guatemala.” 14, 126-127.

282—Boletín Sanitorio “Dr. Rafael Lavista”.

- *a. GUTIÉRREZ PALÁEZ, M., 1943.—“Casos clínicos.” 4 (1/2), 9-11.
- (282a) [Two cases of ascariasis in man.]

283—Boletín de la Sociedad de Cirugía del Uruguay.

- *a. GRAÑA, A., 1943.—“Acción del tratamiento biológico de la hidatidosis y la llamada ‘seudolitiasis de origen hidático’.” 14, 123-132.
- *b. VARELA FUENTES, B., CORONEL, J. A. & RUBIRA, N., 1943.—“Particularidades de la ictericia, en el quiste hidático abierto en vías biliares.” 14, 210-224.
- *c. ARDAO, H. A. & ZERBONI, E., 1943.—“Ileo vermicular; radiología de las ascaridiasis.” 14, 248-259.
- *d. FOSSATI, A., 1943.—“Breves comentarios acerca de un caso clínico de elefantiasis de pene y escroto.” 14, 355-364.
- *e. PRAT, D. & PAIVA, 1943.—“Quiste hidatídico del hígado abierto en vías biliares y complicación de fractura patológica del fémur derecho.” 14, 385-395.
- *f. PRAT, D., 1943.—“Es posible la comprobación hidática de una colección supurada del hígado, después de la operación, solo por las reacciones biológicas?” 14, 396-400.
- *g. PRAT, D., 1943.—“La saculización hidatídica como agente de recidiva y de retardo en la curación del quiste hidático.” 14, 401-404.

284—Boletín de la Sociedad Cubana de Pediatría.

- a. NOGUEIRA RIVERO, P., 1943.—“Parasitismo a vermes en Marianao.” 15 (11), 707-722.

285—Boletín Técnico de la Dirección General de Agricultura y Ganadería, Buenos Aires. Sección Ganadería.

- a. PIZZI, L., 1943.—“Eficacia de la fenotiacina en el enteque de los bovinos.” Año 1943, No. 8, 481-484.
- b. SAETONE, A., 1943.—“Tratamiento del *Thysanosoma actinioides*.” Año 1943, No. 9, 609-610.

(285a) Pizzi reports a severe outbreak of parasitic gastritis in calves on an Argentine stock farm. The helminths involved were *Ostertagia ostertagi*, *Trichostrongylus extenuatus*, and (to a lesser degree) *Haemonchus contortus*. There were 500 deaths. After a number of anthelmintics had been tried without success 46 of the most severely affected animals were given a single 40 gramme dose of phenothiazine suspended in 600 to 700 c.c. water. This treatment, judged by egg-counts, weight-increase and improvement in general condition, was a great success. More detailed faecal examinations and weighings of 10 of the treated animals were made, the results of which are given in a table. The single dose of 40 grammes is recommended for animals of from 1 to 2½ years, and weighing from 150 to 220 kg. A.E.F.

(285b) A dose of 4 c.c. of male fern made up in croton oil is an effective vermifuge for *Thysanosoma actinioides* in sheep. P.A.C.

286—Boletines y Trabajos. Academia Argentina de Cirugía.

- *a. VELASCO SUÁREZ, C., 1943.—“Distomatosis hepática. Diagnóstico y tratamiento.” 27, 324-331.
- *b. GOÑI MORENO, I., 1943.—“Quiste hidatídico solitario del mesenterio.” 27, 544-550.
- *c. JORGE, J. M., 1943.—“Profilaxis de la hidatidosis (equinococosis).” 27, 601-613.

- *d. TAIANA, J. A., ORSI, A. & SPIRITO, E. J., 1943.—“Hidátido-pleura. Pionemotórax consecutivo a la ruptura traumática de un quiste hidatídico del pulmón.” 27, 669-679.
- *e. IVANISSEVICH, O., 1943.—“Tratamiento de algunos quistes hidatídicos del pulmón por el método de Posadas-Arce.” 27, 845-849.
- *f. BREA, M. M. & SANTAS, A. A., 1943.—“Quiste hidático calcificado de hígado. Fístula duodenal.” 27, 963-968.
- *g. GOÑI MORENO, I. & LASCANO, E., 1943.—“Carmin de Best. Presentación de preparados en quistes hidatídicos del pulmón.” 27, 1109-1112.

287—Boletines y Trabajos. Sociedad Argentina de Cirujanos.

- *a. RIVAS, C. I. & MANTILLA, L. R., 1943.—“Derrames peritoneales enquistados de origen hidatídico.” 4, 737-743.
- *b. GRINBLAT, S., ANTOLA, J. & CASIRAGHI, J. C., 1943.—“Terapéutica biológica de la equinococcosis; técnica.” 4, 820-823.

288—Boletines y Trabajos. Sociedad de Cirugía de Córdoba.

- *a. OLMEDO, F. A. & LONGO, O. F., 1943.—“Quiste hidatídico supurado de hígado abierto en las vías biliares.” 4, 135-141.

289—Bollettino della Società Italiana di Medicina e Igiene Tropicale.

- *a. BATTELLI, C., 1943.—“Segnalazione di una *Microfilaria sanguicola* del cane in Eritrea.” 2 (3), 51-54.

290—Brasil-Medico.

- a. NETTO, S., 1943.—“Vermínoses no interior do Brasil.” 57 (34/35), 356.

291—British Guiana Medical Annual.

- a. CLEARKIN, P. A., 1943.—“Some observations on filariasis in British Guiana and its treatment.” Year 1943, 1-12.
- *b. SHARPLES, E. M., 1943.—“Primary hydatid disease of mesentery.” Year 1943, 155-156.

(291a) Clearkin believes that the pathological manifestations associated with *Filaria bancrofti* infection result from (i) an allergic reaction to the parasite, (ii) invasion by pathogenic organisms, and (iii) lymphatic obstruction. Treatment by streptococcal vaccines is only palliative. A combination of vaccine and desensitizing extract of *Dirofilaria immitis* promises to be of value in ameliorating the symptoms and preventing the onset of elephantiasis. R.T.L.

292—British Journal of Experimental Pathology.

- a. PEACOCK, P. R. & BECK, S., 1943.—“Multiple mesenteric sarcomata in rats following ingestion of heated lard.” 24 (4), 143-146.

(292a) Cysticerci tend to give rise to spindle-cell sarcomata in the liver of rats but not of mice: intraperitoneal metastases may be associated with such sarcomata. Therefore when investigating possible carcinogens it is necessary to excise all liver tumours. P.A.C.

293—British Medical Journal.

- a. HOUGHTON, C. H., 1943.—“Treatment of tapeworms.” Year 1943, 2 (4329), 840.
- b. CAWSTON, F. G., 1943.—“Destruction of schistosome larvae.” Year 1943, 2 (4329), 840.

(293a) Manson's hookworm mixture of chloroform, eucalyptus oil and castor oil, is suggested for the treatment of tapeworm infection. R.T.L.

(293b) The most practical method of destroying schistosome larvae is by using a ram forcibly to disturb the water under pressure. The intermediate hosts can be eliminated by dumping cart-loads of soil on rushes on river banks during the dry season. R.T.L.

294—Bulletin de l'Académie Vétérinaire de France.

- a. VELU, H. & TRAIN, G. L., 1943.—“La phénothiazine, anthelminitique de choix pour le cheval.” 16 (7), 213–217.

(294a) Phenothiazine administered to horses with clover or with slightly damped oats was found to be very efficient against strongyles, but less so against ascarids and Oxyuris. There were no toxic symptoms (even when 120 grammes were given within 4 days), but during treatment a more or less pronounced constipation was observed which did not appear to be correlated with the amount of the dose. A dosage of 10 grammes on 4 successive days is recommended, although 4 successive doses of 5 grammes showed good results. A.E.F.

295—Bulletin. Arkansas Agricultural Experiment Station.

- a. SMITH, R. M., 1943.—“Vermifuge treatments and egg production.” No. 431, 26 pp.

(295a) Nicotine sulphate and kamala used as anthelmintics had no statistically significant effect on the egg production capacity of hens. Their administration to apparently healthy hens or pullets is “of questionable value from the standpoints of increased egg production, reduced feed requirement, or improved health of the flock”. R.T.L.

296—Bulletin. Colorado Agricultural Experiment Station.

- a. NEWSOM, I. E. & CROSS, F., 1943.—“Lamb diseases in Colorado feedlots.” No. 474, 44 pp.

297—Bulletin. Florida Agricultural Experiment Station.

- *a. KINCAID, R. R. & REEVES, J., 1943.—“Cultural practices for root-knot control between annual crops of cigar-wrapper tobacco.” No. 392, 16 pp.

(297a) The best treatment, for the period July to January, for ground infested with root-knot nematode, and subsequently to be used for tobacco, was found to be clean fallow followed by a cover-crop of oats in October. With clean fallow for the whole six months there was slightly less root-knot on the tobacco, but yields fell off after the first year, probably owing to depletion of the organic matter in the soil. Aeration of the soil promoting hatching of the nematode larvae, which then die owing to the absence of host plants and to the heat and drought in the surface layers of soil, is considered to be the controlling factor in the clean fallow. A cover-crop of *Crotalaria spectabilis* in 27-inch rows with several cultivations, followed by fallow in November, gave less satisfactory results than the clean fallow and oats, while variable results were produced by cover-crops of native vegetation ploughed under in January. [From an abstract in Exp. Sta. Rec., 90, 648.] M.T.F.

298—Bulletin. Georgia Coastal Plain Experiment Station.

- a. ANON, 1943.—“Nematology.” No. 36 [23rd Annual Report 1942–1943], pp. 112–114.

(298a) In tests of 15 species and varieties of *Lespedeza* for resistance to root-knot, *L. stipulacea* was highly susceptible, *L. striata* somewhat resistant and *L. cuneata*, *L. bicolor*, *L. cystoides* and *L. Cyrtobotrya* were all resistant, though not immune. *Crotalaria spectabilis* is recommended for planting in root-knot infested ground as the larvae enter the roots but do not develop as they do in other *Crotalaria* species. Experiments with three different cover-crops and clean cultivation in a peach orchard heavily infected with root-knot showed greater yields and increases of trunk girth under a resistant cover-crop (oats and *Crotalaria spectabilis*), clean cultivation or trap cropping with susceptible cowpeas, than under susceptible cover-crops of cowpeas and Austrian winter peas. Fig trees are highly susceptible to root-knot, and should not be planted in infected ground. The Laredo, Biloxi and Ootootan varieties of soybean are not resistant enough to root-knot to be of value in a nematode-reducing rotation. M.T.F.

299—Bulletin de l'Institut d'Égypte.

- a. SMYRNIOTIS, P. C., 1943.—“Recherches sur l'état actuel des bilharziens. 204 personnes examinées dans huit régions différentes.” 25, 129-143.

300—Bulletin. Missouri Agricultural Experiment Station.

- a. McDOUGLE, H. C. & DURANT, A. J., 1943.—“Common internal and external parasites of poultry.” No. 473, 24 pp.

301—Bulletin. Texas Agricultural Experiment Station.

- a. YOUNG, P. A., 1943.—“Cottons resistant to wilt and root knot and the effect of potash fertilizer in east Texas.” No. 627, 26 pp.
b. GODFREY, G. H. & YOUNG, P. A., 1943.—“Soil fumigation for plant-disease control.” No. 628, 40 pp.

(301a) Root-knot due to *Heterodera marioni* in cotton plants can be controlled in East Texas in one year by planting disease-immune crops in rows, hand-weeding and hoeing the seedlings and cultivating the crop every 10 to 14 days during the growing season. *Crotalaria spectabilis*, sorghum, and Velvet bean are practically immune and are recommended for starving out these nematodes in the soil. The former, if ploughed in, produces a large amount of nitrogenous organic matter. The latter is a good forage crop. R.T.L.

(301b) Godfrey & Young review the work on the destruction of certain fungi and nematodes in the soil by various means, and stress the advantages of soil fumigants. They describe experiments with various fumigants on laboratory and field scales. In gas-tight chambers containing 2 cubic feet of soil with undecayed root galls harbouring the root-knot nematode, carbon disulphide at the rate of 2,000 lb./acre foot and ethylene dichloride at 6,000 lb./acre foot killed all the root-knot nematodes (in November). In May and June root-knot was eliminated from soil containing decayed galls by 2,000 lb./acre foot of ethylene dichloride or 1,000 lb. of carbon disulphide. The dry sclerotia of the southern blight fungus, *Sclerotium rolfsii*, required more than 2,000 lb./acre foot of ethylene dichloride, or 2,000 lb. of carbon disulphide, for their destruction. A further test, carried out in summer, showed ethylene dichloride at 1,600 lb., chloropicrin at 600 lb. and methyl bromide at 633 lb./acre foot to be lethal to root-knot nematodes. In another test methyl bromide at 166 lb. killed nematodes inside fresh root galls. In outdoor trials practical control of root-knot and also of the weeds nutgrass (*Cyperus rotundus*) and Bermuda grass (*Capriola dactylon*) was obtained by injections 6 in. deep and 12 in. apart of 4 ml. chloropicrin per sq. ft. (640 lb./acre foot). The plot was covered for 4 days with glued paper, the edges of which were sealed with wet soil. Several examples of successful treatment on this scale are described. In larger field trials the chemicals were injected to a depth of 8 in. and the soil was covered with glued paper for 5 days. Chloropicrin (300-600 lb./acre foot) and carbon disulphide (1,000-3,000 lb.) were satisfactory, and tetrachlorethane, pentachlorethane and xylene were usually effective. The authors discuss the effects of the soil type, temperature and moisture on fumigation. They also discuss injection implements, covering materials, the time required for the chemicals to be dissipated from the soil, the possibility of after effects and the recontamination of the soil, the cost of treatments and their uses. They give general directions and precautions necessary in fumigating soil and a useful table of the physical properties of the fumigants used. M.T.F.

302—Bulletin of the Tulane Medical Faculty.

- *a. FAUST, E. C., D'ANTONI, J. S. & SAWITZ, W. G., 1943.—“The diagnosis and treatment of infections with the common intestinal protozoa and helminths.” 2, 39-52.

303—California Cultivator.

- *a. MILLER, R. F., 1943.—“Phenothiazine for sheep.” 90 (17), 440.

(303a) Lambs given a salt lick containing 1 part of phenothiazine to 15 parts of sodium chloride showed greater weight increases than those given the ordinary lick without phenothiazine. [From Biol. Abstr., 18, Abstract No. 3768]. R.T.L.

304—California and Western Medicine.

- *a. MILLER, J., 1943.—“Lung flukes.” 59, 67.

305—Çalışmalar. Ankara Yüksek Ziraat Enstitüsü.

- a. İREN, Z., 1943.—“Türkiye beygirleri'nin ‘Strongylidae’ leri.” No. 130, 53 pp. [German summary p. 38.]

(305a) İren reviews the strongyles of equines and gives a key to the 55 species (45 of which occur in the horse) which he recognizes. *Trichonema barbatum* (Smit & Notoediro, 1923) is considered a synonym of *T. calicatum* (Looss, 1900), and *Craterostomum mucronatum* (Ihle, 1920) a synonym of *C. acuticaudatum* (Kotlán, 1919): other species of doubtful validity could not be cleared up owing to lack of material. Examination of 7 native horses in Turkey yielded 22 species of strongyles, including *Trichonema* (*Cylicocyclus*) *largocapsulatum* n.sp., all of which are described and figured. The paper includes 212 references to the literature. [Although published in 1943 the paper appears to have been written in 1936.] A.E.F.

306—Campo. Buenos Aires.

- *a. CASOS, G. A., 1943.—“Hidatidosis o equinococosis.” 27 (324), 8-9, 13, 62.
 *b. HEGUITO, H. R., 1943.—“Trichostrongilosis gastro-intestinal de los lanares.” 27 (324), 24-26, 65.

307—Ceres. Brazil.

- *a. MAGALHÃES, L. M., 1943.—“Vermínoses dos suínos.” 4, 182-185.
 *b. FREITAS, M. G., 1943.—“Ascarióse dos suínos.” 4, 392-396.

308—Chinese Medical Journal. Washington, D.C.

- a. CHIN, T. H. & LI, K. C., 1943.—“A survey of the metazoan parasite of the domestic cat, *Felis domestica*, of Kweiyang.” 61 (3), 217-226.

(308a) Chin & Li record the presence of 16 helminth species in the cats of Kweiyang, of which 4 are trematodes, 3 cestodes and 9 nematodes. *Taenia taeniaeformis* and *Diphyllbothrium* are the most frequent parasites, the latter occurring in both adult and larval stages. The heaviest infestations were those with *Pharyngostomum cordatum*, the average number of worms per host being 46.6 but as many as 500 occurred in some cats. New host records for this district are *Fasciola hepatica*, *Eurytrema* sp. and *Uncinaria* sp. P.A.C.

309—Circular. Oregon Agricultural Experiment Station.

- a. DICKINSON, E. M., 1943.—“Some questions and answers about ‘worms’ in chickens and turkeys.” No. 150, 10 pp.
 b. MUTH, O. H. & SHAW, J. N., 1943.—“Scours in Oregon calves.” No. 154, 10 pp.

310—Clinical Journal.

- a. CAWSTON, F. G., 1943.—“Parasitic infection in the surgery of the abdomen.” 72 (6), 239-240.

311—Clinical Medicine.

- a. FAUST, E. C., D'ANTONI, J. S. & SAWITZ, W. G., 1943.—“The treatment of intestinal protozoa and helminths.” 50 (10), 261-263; (11), 297-299.

312—Clinical Proceedings. Journal of the Cape Town Post-Graduate Medical Association.

- a. CAWSTON, F. G., 1943.—“The problem of filariasis in South Africa.” 2 (8), 226-227.

(312a) Obscure symptoms associated with an eosinophilia in persons entering the Union of South Africa may be due to filarial infection. The Bilharzia antigen test may give a positive reaction with filarial infection. Cawston cites a case of *Loa loa* in which this apparently occurred. He gives some details of a trial with anthiomaline in a suspicious case of filarial infection.

R.T.L.

313—Clinics.

- a. CLOTHIER, W. J. K., 1943.—“Filariasis due to *Loa loa-loiasis*.” 2 (4), 875-881.
 b. MOST, H., 1943.—“Common human parasites: recognition and treatment.” 2 (4), 914-935.

314—Colorado Farm Bulletin.

- *a. HARSHFIELD, G. S. & ESPLIN, A. L., 1943.—“Liver condemnations in feedlot lambs can be reduced by early treatment for worms.” 5 (4), 10-12.

(314a) The fringed tapeworm, which inhabits the bile ducts of sheep, is prevalent in the west of the U.S.A. and its presence often causes the liver to be unsuitable for human consumption. Copper sulphate-nicotine sulphate mixtures are effective against this worm provided they have not already become established in the bile ducts. [From an abstract in Exp. Sta. Rec., 90, 250.] P.A.C.

315—Comptes Rendus (Doklady) de l'Académie des Sciences de l'URSS.

- a. SKARBILOVICH, T. S., 1943.—“Contribution to the reconstruction of the taxonomy of the trematodes of the family Lecithodendriidae Odhner, 1911.” 38 (7), 223-224.
 b. SOBOLEV, A. A., 1943.—“The trend of evolution of the nematodes of the family Acuariidae.” 39 (2), 76-79.
 c. POPOV, V. A., 1943.—“Numerosity of *Mustela erminea* Pall. as affected by *Skrjabinogylus* invasion.” 39 (4), 160-162.
 d. ALEYNIKOVA, M. M., 1943.—“Fecundity in white hare as affected by helminthic diseases.” 40 (3), 126-128.
 e. SOBOLEV, A. A., 1943.—“Trend of evolution in trematodes of the family Philophthalmidae.” 40 (9), 378-380.
 f. FEDUSHIN, A. V., 1943.—“Seasonal adaptation reaction (destrobilization) in cestode parasitic of non-migratory birds.” 41 (8), 354-356.

(315a) Considering the family Lecithodendriidae, Skarbilovich subdivides on the basis of the position of the genital aperture: each subfamily is then divided into tribes according to the presence or absence of a bursa and the relative positions of genital aperture and sucker. Under these new arrangements a number of new tribes and new genera have been created. The Lecithodendria n. tribe has no bursa and the aperture lies at the anterior edge of the ventral sucker: the Phaneropslea n. tribe has a bursa and the aperture lies at the level of the intestinal forking. The Gyrobascea n. tribe has no bursa and the aperture is posterior to the sucker while the Limatulea n. tribe has a bursa and a posteriorly placed genital aperture. The Pleurogenea n. tribe and the Brandesia n. tribe have the genital aperture on the lateral edge of the body; in the former it is anterior to the sucker and in the latter is level with, or behind, the sucker. There are 4 new genera: *Lecithodendrium orospinoso* becomes the type species of *Skrjabino-dendrium* n.g.; *L. bhaleraoi* is the type of *Travassodendrium* n.g., which genus also includes *T. pushpai*, *T. mehrai* and *T. allahabadi*; *L. luzonicum* becomes the type of *Chiroptodendrium* n.g., while the genus *Echinuscodendrium* n.g. is created to hold *L. echinusus*. P.A.C.

(315b) Among the family Acuariidae the genus *Acuaria* seems to have become less specialized than other genera and may therefore be capable of giving rise to new lines of development. The genera *Echinuria* and *Skrjabinoclava* have become almost specific in their choice of host which probably limits their evolutionary powers. Genera of the Streptocarinae approach the primitive ancestral forms. P.A.C.

(315c) Popov finds that parasitization with *Skrjabinogylus petrowi* may cause malformation and even perforation of the frontal bones of various fur-bearing animals, particularly *Mustela erminea* and various species of *Martes*, *Putorius*, *Kolonokus*, and *Lutreola*. The life-cycle takes 35 days and involves the use of the mollusc *Succinea putris*. The degree of deformity is great enough to affect reproduction of the host. P.A.C.

(315d) Aleynikova has made a statistical correlation between certain helminth infestations in pregnant hares and the number of embryos, using in particular data from hares infested with *Synthetocaulus kamenskyi*, *S. commutatus*, *Dicrocoelium lanceolatum*, *Trichostrongylus*

retortaeformis and *Taenia pisiformis*. He has no evidence that *T. retortaeformis* or *T. pisiformis* have any injurious effect on the fecundity of the hares, but the other two species definitely affect it. P.A.C.

(315e) Sobolev creates *Ophthalmotrema numenii* n.g., n.sp. for a philophthalmid parasite found in the eye of *Numenius arquatus* in Russia. It is related to the genus *Pygorchis*, but differs in possessing a well-developed oesophagus, and in the constriction of the body into two parts. He believes that, of the 5 genera which make up the family Philophthalmidae, *Cloacitrema* and *Pygorchis* represent the most primitive forms, being the least specialized. Primitive *Cloacitrema*-like forms gave rise to the genus *Parorchis*, while *Pygorchis*-like forms developed the genitalia and gave rise to the species of *Philophthalmus* and *Ophthalmotrema*. P.A.C.

316—Comptes Rendus des Séances de l'Académie des Sciences. Paris.

- a. DESCHIENS, R., LAMY, L. & VAUTRIN, E., 1943.—“Essais pratiques de prophylaxie de l'anguillulose des végétaux par l'emploi d'hyphomycètes prédateurs.” 216 (15), 539-541.

(316a) Deschiens, Lamy & Vautrin report on an experiment in which they tested the efficacy of two species of fungi, which entrap and destroy nematodes, to control the root-knot nematode, *Heterodera marioni*, in soil. After cultivating the two fungi, *Dactylella bembicodes* and *Arthrobotrys oligospora*, on a suitable nutrient medium containing cereal straw their spores were obtained in large numbers and were mixed with potting soil in which cuttings of *Begonia* were planted. There were 21 pots of soil inoculated with fungal spores and 18 uninoculated pots as control and all were grown under the same conditions in a warm greenhouse. At the end of the season the roots were examined and it was found that in the controls 8 out of 18 plants, or 44.4%, bore galls with an average of 85 galls per plant whilst of the 21 plants grown in inoculated soil only 3 had galls, i.e. 14%, with an average of 5 galls per plant. T.G.

317—Comptes Rendus des Séances de la Société de Biologie. Paris.

- a. LAMY, L., 1943.—“Intensité et vitesse relatives de la formation des dispositifs capteurs chez les hyphomycètes prédateurs de nématodes.” 137 (11/12), 337-339.
 b. DESCHIENS, R. & LAMY, L., 1943.—“Conditions pratiques de culture, de sporulation et de récolte des spores d'hyphomycètes prédateurs de nématodes.” 137 (11/12), 381-383.
 c. MORENAS, L., 1943.—“Les réactions d'allergie cutanée dans la distomatose humaine à *Fasciola hepatica* cuti et intra-dermo-réaction.” 137 (17/18), 563-565.

(317a) Lamy has conducted experiments designed to test the ability of the fungus, *Dactylella bembicodes*, to form organs of capture under the stimulus of organic media, namely, an extract of the earthworm (*Lumbricus rubellus*) and horse serum. A comparison is made between the reaction of spores and hyphae when grown in the different media at various concentrations. The results set out in tabular form show clearly that the earthworm extract is more potent than the horse serum in promoting the production of the organs of capture. It also promotes a more rapid reaction than the horse serum and at a higher dilution. T.G.

(317b) Deschiens & Lamy give details for the preparation of a medium for the cultivation of hyphomycetous fungi (*Arthrobotrys*, *Dactylella* and *Dactylaria*) which capture nematodes. The medium is made by cooking 150 grammes of maize for $\frac{1}{2}$ to $\frac{3}{4}$ hour in 1 litre of water. After filtering there is added 5 grammes of malt extract or 20 grammes of maltose and the mixture is then sterilized in the autoclave at 115°C. for $\frac{1}{4}$ hour. Dried beans or peas can be used instead of maize. Cultures of fungi are made in this medium and grown in Petri dishes at 25°C. for 30 days, by which time spores have formed in abundance on the fungal mycelium. The liquid of each culture is drawn off and the mycelium with its spores is slowly dried for 7 days at 37°-40°C. after which it is mixed with 10 grammes of dried soil which serves as a neutral medium in which the spores can be distributed to any desired site. T.G.

(317c) Morenas has investigated the cutaneous responses in several cases of *Fasciola hepatica* infection in man, and finds that skin tests can be used to diagnose suspected cases which show no eggs in the stool. A suitable antigen was made from bovine flukes and extracted with physiological saline and/or neutral glycerine. Carriers of *Taenia saginata* and hydatid give no reaction. P.A.C.

318—Deutsche Landwirtschaftliche Tierzucht.

- a. LINSERT, 1943.—“Die parasitären Erkrankungen des Schafes.” 47 (40/41), 200–201.

319—Deutsche Medizinische Wochenschrift.

- a. GAASE, A., 1943.—“Der serologische Nachweis der Trichinose.” 69 (25/26), 492.

(319a) In this short note Gaase summarizes recent work on the serological diagnosis of trichinelliasis, and stresses that its use amongst pigs and other animals would help the control of the disease. A.E.F.

320—Deutsche Pelztierzüchter (Der).

- *a. SCHOOP, 1943.—“Trichinenfälle bei Zuchtfüchsen und Sumpfbibern.” 1943, 126.

(320a) A total of 41,522 foxes and 11,908 nutria from fur farms were examined for *Trichinella*: 40 foxes were positive, but all nutria were negative. Of the infected foxes, 30 were from the same farm. [From an abstract in *Z. Fleisch- u. Milchhyg.*, 53, 230.] A.E.F.

321—Deutsche Tierärztliche Wochenschrift. Tierärztliche Rundschau.

- a. SCHMID, F., 1943.—“Die Magenwurmseuche der Gänse und ihre Bekämpfung.” †51/49 (13/14), 122.
 b. SCHMID, F., 1943.—“Kriegsbedingte Fragen zur Behandlung parasitärer Krankheiten.” 51/49 (21/22), 210–212.
 c. NIEMAND, H. G., 1943.—“*Coenurus serialis* beim Kaninchen.” 51/49 (21/22), 215.
 d. LASZLO, F., 1943.—“*Echinococcus* in der Schilddrüse eines Schweines.” 51/49 (23/24), 232.
 e. WETZEL, R. & ELKSINITIS, W., 1943.—“Untersuchungen über die Brauchbarkeit des Phenothiazins als Wurmmittel bei Haustieren. (Vorläufige Mitteilung.)” 51/49 (27/28), 279–280.
 f. GÖTZE, R., 1943.—“Behandlung der Lungenwurmkrankheit des Rindes mit Derrophen. I. Mitteilung. Intratracheale Verabreichung von Derrophen.” 51/49 (31/32), 302–305.

(321a) Schmid discusses the disease in geese produced by infestation with *Amidostomum anseris* describing the symptoms, various methods of treatment, and preventive measures. It is most prevalent in the summer months: death may supervene within a few days. P.A.C.

(321b) Schmid stresses the importance of correct treatment of parasitic infections in domestic animals, especially in war-time. Research on suitable drugs which can be produced in Germany is urged, in order to replace those previously imported. A.E.F.

(321c) Wetzel & Elksnitis found that a single 30-gramme dose of phenothiazine, given to horses in their feed, was practically 100% efficient against *Trichonema* spp. and from 80% to 96% against *Strongylus* spp. Of the 47 horses given this treatment 34 were also infected with *Parascaris equorum*: 37 days after dosing the faeces of 18 of these were free from *P. equorum* ova. Against *Oxyuris* phenothiazine was found to be ineffective. Secondary symptoms, such as weakness, loss of appetite, and icteric discolouration of the mucous membrane, were shown by 8 of the horses for a few days after treatment. A.E.F.

(321f) Götz recommends intratracheal injection of Derrophen for lungworm disease in cattle. The drug is prepared in a concentration of 7.5 : 1,000 distilled water 12 to 24 hours before use. The dosages are: animals up to 9 months of age; 80 c.c.; from 9 to 18 months, 100–150 c.c.; over 18 months, 200–250 c.c. For lightly infected animals one dose is sufficient, but for heavier infections up to 4 injections at 3 to 4 day intervals may be necessary. A.E.F.

322—Deutsche Zeitschrift für Chirurgie.

- a. RITTER, C., 1943.—“Solitäre und multiple Muskelcysticeren.” 257 (9/12), 664–683.

(322a) Two case-histories of *Cysticercus cellulosae* in man are presented: (i) in a 12-year-old girl a single cysticercus was found in the rectus abdominis muscle; (ii) generalized multiple infection in a middle-aged man. No information as to source of infection is given in either case. The main part of the paper is taken up with a general account of cysticerciasis in man. A.E.F.

† The first volume number is that of Deutsche Tierärztliche Wochenschrift and the second that of Tierärztliche Rundschau. Although the two journals are now issued as one, the volume number of each is retained.

323—Deutsches Archiv für Klinische Medizin.

- *a. STAUDACHER, W., 1943.—“Zur Klinik der Trichinose.” 191, 128.

324—Día Médico.

- a. QUIROGA, P., 1943.—“Tratamiento biológico de la hidatidosis. (Comunicación previa.)” 15 (33), 928-929.
 *b. ARCE, J., 1943.—“Quiste hidático del pulmón.” 15, 1107-1110.
 *c. RIVAS, C. I., 1943.—“Clasificación de la equinococosis hidatídica del peritoneo.” 15, 1109.
 *d. GIL, R. R. & ACOSTA, A. E., 1943.—“Entozoosis intestinal y ojos.” 15, 1163-1164.
 *e. ALESSANDRI R., H., GARCÍA P., P. & LERNER M., J., 1943.—“Diagnóstico y tratamiento de las parasitosis intestinales más frecuentes.” 15, 1324-1330.

(324a) Quiroga believes that a successful method of treating hydatid has been evolved without recourse to surgery. By the biological use of antigen a patient with multiple abdominal hydatid increased his weight by 16 kilo, the cysts were reduced and his fistulas were cured. The main difficulty is that large quantities of antigen are necessary, a difficulty which may limit the use of this treatment on a large scale. P.A.C.

325—East African Medical Journal.

- a. TRIM, E. A., 1943.—“Infection with *Schistosoma mansoni*.” 20 (9), 289-292.

(325a) Although known to the general public the gravity of intestinal schistosomiasis is not yet realized in Kenya. Trim cites a case in a child with diarrhoea, acute abdominal pains and a temperature of 106°F. These symptoms appeared a fortnight before *S. mansoni* eggs could be found in the faeces. Another case showed all the signs of subacute obstruction with *S. mansoni* eggs in the faeces. The obstruction was found to be due to white nodules, varying in size from a marble to a hen's egg, in the mesentery. Two of these masses pressed on the descending colon causing the obstruction. On examination microscopically these granulomata were found to contain *S. mansoni* eggs. R.T.L.

326—Federal Veterinarian.

- a. FOSTER, A. O. & HABERMANN, R. T., 1943.—“Phenothiazine for the control of parasites of farm animals.” 1 (3), 1-5.

(326a) [For abstract of this paper see below No. 443.]

327—Gaceta Médica de Caracas.

- a. GONZÁLEZ RINCONES, R., 1943.—“Encuesta sobre bilharziosis. La marca del caracol.” 50 (19), 209-210.

(327a) *Australorbis glabratus*, the vector of *Schistosoma mansoni* in Venezuela, occurs in districts now being used for intensive cultivation of crops and stock, with the result that the disease is on the increase. González Rincones therefore suggests a wide programme of education among the general population, as well as the usual medical measures, in order to combat further spread of the disease. P.A.C.

328—Gastroenterology. Baltimore.

- a. FAUST, E. C., 1943.—“Disease in the tropical war zones.” 1 (11), 995-1012.
 b. BERK, J. E., WOODRUFF, M. T. & FREDIANI, A. W., 1943.—“Pulmonary and intestinal changes in strongyloidiasis.” 1 (12), 1100-1111.

(328a) In this first part of his survey of diseases in tropical theatres of war, Faust deals with tropical and subtropical America [for a later part see Helm. Abs., Vol. XIII, No. 21a]. The helminth infections mentioned are: *Ascaris lumbricoides* (almost 100% infection in young children), *Necator americanus* (common in some areas), *Ancylostoma duodenale* and *A. braziliense* (not so important as the former), *Strongyloides stercoralis* (occurring in the hookworm belts), *Trichuris trichiura* (infection frequently very heavy in hookworm areas), *Schistosoma mansoni* (extensive distribution, particularly in Puerto Rico, Lesser Antilles, Venezuela, Dutch Guiana and Northern Brazil), *Wuchereria bancrofti* and *Onchocerca volvulus*. A.E.F.

329—Geneeskundige Bladen uit Kliniek en Laboratorium voor de Praktijk.

- *a. TENHAEFF, C. & FERWERDA, S., 1943.—“25 Jahre Echinokokkenbekämpfung in der Provinz Friesland.” 40, 81.

330—Harefuah.

- a. YONIS, Z., 1943.—[Intestinal parasites in children in Jerusalem.] 25 (4), 65–67; (5), 87–90. [n Hebrew.]

331—Hassadeh.

- a. MINTZ, A., 1943.—“Additional list of plants affected by *Heterodera marioni*.” 24 (3), 104. [In Hebrew.]

(331a) Mintz gives a list of 16 plants the roots of which have been found parasitized by *Heterodera marioni* in Palestine. Of these the following are new host records: *Argyreia speciosa*, *Centaurea hyalolepis*, *Cichorium pumilum*, *Lathyrus Ochrus*, *Litchi chinensis*, *Panicum colonum* and *Ridolfia segetum*. T.G.

332—Hospital. Rio de Janeiro.

- *a. VILLELA, E., 1943.—“Contribuição ao estudo histopatológico do fígado na schistosomose mansonii humana.” 23, 345–360.

333—Indian Journal of Veterinary Science and Animal Husbandry.

- a. VAIDYANATHAN, S. N., 1943.—“An adaptation of White's method for the collection of infective larvae from bovine faecal cultures and its practical application.” 13 (2), 157–161.
 b. MUDALIAR, S. V., 1943.—“*Cotugnia bhaleraoi* n.sp.” 13 (2), 166–167.
 c. DHAYAGUDE, R. G., 1943.—“*Diro-filaria repens* infestation of dogs.” 13 (2), 171–173.
 d. RAO, M. A. N., 1943.—“Notes of parasitological interest.” 13 (2), 178–179.
 e. VAIDYANATHAN, S. N., 1943.—“*Skrjabinema ovis* (Skrjabin, 1915) Wereschtschagin, 1925, an oxyurid parasite of the goat (*Capra hircus*) in India.” 13 (3), 240.
 f. BHALERAO, G. D., 1943.—“The cercarial fauna of the irrigated tract of the Nizam's dominions, with suggestions regarding their relationship to the trematode parasites in man and in domestic and other animals.” 13 (4), 294–296.

(333a) After summarizing 5 recognized methods of obtaining strongyle larvae from faeces a simple adaptation of that described in 1927 by White is described. It consists mainly in replacing the crystallizing dish and the watch glass cover in the White technique by petri dishes. Two petri dishes about 5 inches in diameter and one of half that diameter only are required. Blotting paper is fitted into the small petri dish and moistened. Fresh faeces is then spread on the blotting paper to fill the petri dish to half or three-quarters full. This is placed in the centre of one of the larger petri dishes which is filled with water until the level reaches within a quarter of an inch of the brim of the smaller petri dish. The second large petri dish is then inverted as a flush cover over the first and the whole is incubated at the desired temperature. The infective larvae which develop from the eggs in the faeces are trapped in the water belt as they migrate from the small petri dish. R.T.L.

(333b) *Cotugnia bhaleraoi* n.sp. resembles *C. margareta* in having a rostellum smaller than the suckers but differs in possessing larger sized T-shaped hooks 0.009 mm. long, a single pair of excretory canals, and a longer cirrus sac. It occurred in the intestines of *Gallus gallus domesticus*, near Madras. R.T.L.

(333c) Although *Dirofilaria immitis* is the commoner species of the genus *Dirofilaria* in India it could not be found in 201 dogs in Bombay, but a few specimens of *D. repens* were collected. The infection occurred in 9 of the dogs. This infection is much more frequent in Bihar and Orissa. There is a definite nocturnal periodicity. The adults were found in the subcutaneous tissues. The dogs do not appear to suffer any inconvenience from their presence. R.T.L.

(333d) Rao identifies as *Schistosoma suis* half a dozen pairs of schistosomes collected from the mesenteric veins of a dog. The ova of *S. nasalis* have been found again in sections of horn growths in cattle. He records for the first time the presence of *Pharyngostomum cordatum* in the tiger and in India. *Thelazia* sp. has been found in sections of an epitheliomatous growth from the eyelid of a bullock and microfilariae occurred in the capillary vessel in the healthy portion of the dermis. The relation of these to the *Thelazia* was not determined. In sections of nodular eruptions and corrugations of the skin in many of the Madras cattle examined there were unsheathed microfilariae similar to those previously recorded by Srivastava from Bombay.

R.T.L.

(333e) *Skrjabinema ovis* is probably of wide distribution in Southern India. It has been noted in 9 out of 70 goats from various places around and at considerable distances from Madras.

R.T.L.

(333f) Bhalerao describes the cercarial fauna of 5 species of snails in an irrigated tract of land. *Vivipara bengalensis* was free from all parasites. The others were *Indoplanorbis exustus*, *Limnaea acuminata*, *L. luteola* and *Melanoides* sp. and from some or all of these were obtained cercariae recognized as larvae of *Schistosoma spindalis*, *S. nasalis*, *S. sp.*, a plagiorchid or dicrocoeliid fluke, *Fischoederius elongatus*, another amphistome, an echinostome and 2 monostomes. Other larvae are described but not assigned zoologically: they are indicated as numbered *Cercariae indicae*.

P.A.C.

334—Indian Medical Record.

- a. DESAI, D. B., 1943.—“Filariasis.” 63 (8), 240–242.
- b. CHOUDHURY, K. L., 1943.—“Treatment of tropical diseases complicating pregnancy.” 63 (9), 277–283.
- c. CHATTERJEE, M. L., 1943.—“A case of severe hook worm anaemia.” 63 (9), 283–284.

(334a) Desai reports four cases of filariasis seen in the acute stage which is stated to be due to toxins liberated by the parasites or due to secondary infection. He defines a subacute stage as one in which oedema and pitting on pressure occur, and a chronic stage with fibrosis and crippled appendages requiring surgical intervention.

R.T.L.

335—Indian Veterinary Journal.

- a. SHARMA, K. N., 1943.—“Note on cestodes collected in Nepal.” 20 (2), 53–67.

(335a) A survey of the helminth parasites of a group of animals in Nepal includes the following new species: *Raillietina dhuncheta* n.sp. from *Euplocamus leucomelanus*, *R. kantipura* n.sp. from *Columba livia*, *R. nepalis* n.sp. from *Passer domesticus*, *R. nripendra* n.sp. from *C. livia*, *R. parbata* n.sp. from *Gallus gallus*, *Hymenolepis kaiseris* n.sp. from *Caccabis chukar*, *H. krishna* n.sp. from *Arvicola torquatus*, and *Nepalesia joodhaii* n.g., n.sp. from *Columba livia*.

P.A.C.

336—Instituto de Parasitología y Enfermedades Parasitarias. Facultad de Agronomía y Veterinaria. Universidad de Buenos Aires.

- a. ROSA, W. A. & GALOFRE, E. J., 1943.—“Eficacia de la fenotiacina en las diversas parasitosis de equino. Precauciones en su administración.” 2 (5), 1–74. [English summary p. 64.]

(336a) Rosa & Galofre summarize the information available with regard to phenothiazine as an anthelmintic. In the case of horses it is a specific for species of *Strongylus* and *Trichonema* but useless against other parasites. As toxic symptoms have been noted after its use, it is advisable to use it with discretion for the liver and kidney may be affected. Details of treatments on nearly 50 cases are given.

P.A.C.

337—Jornal do Médico. Pôrto.

- a. FRAGA DE AZEVEDO, J., 1943.—“Os animais domésticos como fontes de doenças para o homem.” 3 (68), 457–459; (69), 476–479; (70), 499–502; (71), 530–532; (72), 553–556.

(337a) This summary of human diseases, in the dissemination of which domestic animals play an important part, includes accounts of hydatid, *Trichinella*, *Taenia solium*, *T. saginata*, *Ascaris lumbricoides*, and *Dipylidium caninum*. A diagrammatic representation of the life-history of each parasite is given.

A.E.F.

338—Journal of Agriculture. University of Puerto Rico.

- *a. ANDREWS, J. S., MUÑIZ, C. M. & ORIHUELA, F., 1943.—“Preliminary note on the administration of non-conditioned phenothiazine, in small daily doses, for the control of gastrointestinal parasites of cattle in Puerto Rico.” 27, 125-130.

339—Journal of the American Medical Association.

- a. GRACE, A. W., 1943.—“Tropical lymphangitis and abscesses.” 123 (8), 462-466.
- b. SMITH, D. C., 1943.—“The treatment of creeping eruption with sodium antimony biscatechol (Fuadin).” 123 (11), 694-695.
- c. ROME, H. P. & FOGEL, R. H., 1943.—“The psychosomatic manifestations of filariasis.” 123 (15), 944-946.
- d. BLANK, H., 1943.—“Use of Fuadin in creeping eruption.” [Correspondence.] 123 (15), 989-990.
- e. ANON, 1943.—“Tropical diseases in returning military personnel.” 123 (16), 1052-1053.

(339b) Cure followed the use of Fouadin in a case of creeping eruption. A 6.3% solution was used, 2 c.c. of the solution being injected intramuscularly daily for 5 days. The eruption began to clear up after 2 or 3 doses and had gone by the fifth dose.

R.T.L.

(339c) “Mood” disturbance is particularly noticeable in filariasis. In addition to fatigue, irritability, depression and anxiety associated with systemic infections, there is a pre-vailing element of apprehension in white people which is absent in infected natives. Latent and imaginary dangers can only be dispelled when the irrationality and emptiness of most of these fears are understood from a simple repeated presentation of facts and explanation of the reasons for rules and regulations on screening and mosquito control, while simple instruction on the pathology of the disease can allay fears of impotence, sterility and possible genital transmission. By such authoritative information the soldier in infected areas is less likely to assume that the chronically diseased native with elephantiasis is a “mirror prediction”.

R.T.L.

(339d) Commenting on D.C. Smith's article on the success of Fouadin in creeping eruption [see above] Blank reports complete failure after 10 injections of 5 c.c. each given three times a week. The best result followed freezing with ethyl chloride spray of a large area of the skin surrounding the advancing lesion.

R.T.L.

340—Journal of the Department of Agriculture. South Australia.

- a. ANON, 1943.—“Phenothiazine for the treatment of stock against worms.” 46 (11), 300-301.
- b. MITTON, R. L., 1943.—“Internal parasites of sheep.” 46 (11), 303-306; 47 (3), 118-121.

(340b) [For later parts of this paper see Helm. Abs., Vol. XIII, No. 33a.]

341—Journal of the Department of Agriculture. Victoria.

- a. EVANS, J. W., 1943.—“Internal parasites of swine.” 41 (10), 485-491.

(341a) Extensive losses occur in the State of Victoria although it is more favourably placed in respect of some internal parasites than the more northern parts of Australia. Evans briefly describes the characters and life-histories of *Ascaris lumbricoides*, *Hyoststrongylus rubidus*, *Trichuris trichiura*, *Oesophagostomum dentatum*, *Stephanurus dentatus*, *Metastrongylus apri* and *Trichinella spiralis*, although the last-named has not been reported as indigenous in Australia. *Fasciola hepatica* and *Cysticercus tenuicollis* occur infrequently, while hydatid is common. *Cysticercus cellulosae* has not been recorded in Australia.

R.T.L.

342—Journal of Economic Entomology.

- a. SWAIN, R. B., 1943.—“Nematode parasites of the white-fringed beetles.” 36 (5), 671-673.

(342a) Nematodes of the genus *Neoaplectana* have been found in larvae of white-fringed beetles, *Pantomorus* spp., in Harrison County, Miss., U.S.A., and Swain gives an account of a co-operative project, undertaken by the Divisions of Domestic Plant Quarantines and Cereal & Forage Insect Investigations, for the purpose of investigating the potentialities of these nematodes as control agents of white-fringed beetles. One of the species of *Neoaplectana* found, and as yet unnamed, closely resembles *N. glaseri* and is amenable to culture on artificial media. Experiments already carried out have shown that the new species exercises some measure of control over the beetles when its infective larvae are inoculated into beetle-infested soil. T.G.

343—Journal of the Indiana State Medical Association.

- a. HEADLEE, W. H. & HOPP, W. B., 1943.—“Intestinal parasitism in selected groups of rural residents of Indiana.” 36 (11), 592-595.

344—Journal of Pediatrics.

- a. SLESINGER, H. A., 1943.—“Trichinosis during childhood.” 23 (3), 327-334.

(344a) As children under four years of age rarely eat pig flesh there are few records of trichinosis in children. Slesinger reports the clinical course and differential diagnosis in eighteen cases. Nephritis, sinusitis, la grippe and acute gastro-enteritis may be simulated. Eosinophilia may be absent in the early stages and during convalescence. Intradermal and precipitin tests are of great value. R.T.L.

345—Journal of the Tennessee State Medical Association.

- *a. TURNER, E. L., 1943.—“Diseases of the Mediterranean basin.” 36, 205-209.

346—Journal of the University of Bombay. Section A. Physical Sciences.

- a. PARANJAPE, K., PHALNIKAR, N. L. & NARGUND, K. S., 1943.—“Synthetical anthelmintics. Parts VII and VIII.” 12 (3), 60-63.

347—Journal of Urology.

- a. NEWMAN, H. R., 1943.—“Transurethral surgery in relation to bilharziosis of the bladder.” 50 (4), 440-445.

348—Journal of the West China Border Research Society.

- a. CHANG, K., 1943.—“Domestic flies as mechanical carriers of certain human intestinal parasites in Chengtu.” 14, Ser. B, 92-98.

(348a) Chang has examined 3,076 domestic flies (representing 7 species) in Chengtu, to determine their possible importance as mechanical transmitters of helminth ova. *Chrysomya megacephala* was found to be the most important species, 41.7% carrying helminth ova or protozoan cysts. All specimens of *Musca vicina* were negative. A.E.F.

349—Journal-Lancet.

- a. MARSHALL, W., 1943.—“Persistent cough produced by ascariasis, with a case report.” 63 (3), 72-73.
b. TORRES, F. E., 1943.—“Echinococcus cyst of the lung.” 63 (4), 95-96.

350—Kentucky Medical Journal.

- a. LINCICOME, D. R., 1943.—“Some tropical diseases and the present war.” 41 (8), 258-264.

351—Közlemények az Összehasonlító Élet-és Kórtan Köréből.

- *a. BAJCSY, E., 1943.—“Ist eine Bestimmung des Grades einer distomatösen Infektion möglich auf Grund der durch Anreicherungen nachweisbaren Zahl der Leberegeleier im Kote?” 31, 360.

(351a) Bajcsy reports that potassium carbonate solution is a useful substitute for the more expensive potassium iodomercurate solution [Kaliumjodomerkuratlösung] for concentrating trematode ova. He states that one egg in 3 drops of the latter corresponds to 22 egg-laying trematodes, while in potassium carbonate solution it corresponds to 26 egg-laying trematodes in the host. [From an abstract in Dtsch. tierärztl. Wschr. Tierärztl. Rdsch., 52/50, 34.]

A.E.F.

352—Leech.

- *a. CAWSTON, F. G., 1943.—“Some elementary facts in regard to control of Bilharzia.” 14, 17.

353—M.S.C. Veterinarian. Michigan State College.

- a. EVELETH, D. F. & EVELETH, M. W., 1943.—“Further studies on the control of lung worms in sheep.” 4 (1), 22-25, 46.

(353a) It is recommended that *Dictyocaulus filaria* infestation in sheep can be controlled to a certain extent by careful isolation and treatment of affected animals. They should be fed good rations and given intratracheal injections of aqueous phenothiazine solution unless there are signs of advanced pneumonia. Good drinking water should be provided and all ponds fenced off. Animals should not be returned to the main flock until clinical symptoms have subsided.

P.A.C.

354—Maanedsskrift for Dyrlaeger.

- a. LIEBERKIND, I., 1943.—“Lidt om Rundorme-Aegs Resistens over for ydre Paavirkning.” 55 (2), 49-60.
b. MADSEN, H., 1943.—“Trikinfund hos Rotter i Danmark.” 55 (2), 61-66.

(354a) Lieberkind has investigated the resistance of eggs of *Toxocara canis* and *T. mystax* to immersion in various chemical solutions. Non-embryonated eggs tended to be more resistant than embryonated, and *T. canis* was on the whole more resistant than *T. mystax*. Sodium chloride and sodium carbonate had no effect on viability, nor had 4% lysol. Embryonation proceeded normally after immersion for 8 days in 40% formalin, or after a month in 10% : it also proceeded in 10% HCl or NaOH. Stronger solutions of HCl, lysol and NaOH were lethal to the eggs. Drying and slow cooling did not have much effect on vitality, but rapid chilling or heating to 40°C. killed the eggs.

P.A.C.

(354b) *Trichinella spiralis* occurred once only in 241 rats from 7 different localities in Denmark.

R.T.L.

355—Medical Clinics of North America.

- *a. MELENEY, H. E., 1943.—“Schistosomiasis.” 27, 848-861.
*b. SHATTUCK, G. C., 1943.—“Bancroftian filariasis and elephantiasis.” 27, 862-869.
c. PERKINS, W. H., 1943.—“Tropical diseases of concern to the home front.” 27 (6), 1476-1496.

356—Medical Journal of Australia.

- a. MAPLESTONE, P. A., 1943.—“Hookworm disease.” [Correspondence.] 30th Year, 2 (2), 37.
b. WESLEY, C., 1943.—“Embolus of left femoral artery due to a hydatid cyst.” 30th Year, 2 (24), 483.

(356a) Although natives with hookworm infection often complain only of indefinite, rather vague symptoms of discomfort in the epigastrium, Maplestone's experience of recently acquired infections in Europeans is that the symptoms suggest duodenitis or even duodenal ulcer. The fact that the hookworms suck blood may be a further source of confusion with ulcer. A diagnosis based on examination of the faeces for eggs is therefore desirable.

R.T.L.

357—Medical Parasitology and Parasitic Diseases.

- a. PODYAPOLSKAYA, V. P. & GORODILOVA, L. I., 1943.—[Staining method for determining viability of *Hymenolepis nana* ova.] 12 (2), 64–72. [In Russian.]
- b. GORODILOVA, L. I., 1943.—[The rate of excretion of *Hymenolepis nana* ova by children.] 12 (2), 72–80. [In Russian.]
- c. KEVORKOV, N. P., 1943.—[The epidemiology and epizootology of *Hymenolepis* infections.] 12 (2), 80–83. [In Russian.]
- d. KEVORKOV, N. P., 1943.—[The treatment of *Hymenolepis* infections.] 12 (2), 83–88. [In Russian.]
- e. GOLUBYATNIKOVA, N. I., 1943.—[The role of the external medium in the epidemiology of helminthiasis.] 12 (2), 88–94. [In Russian.]
- f. IONINA, N. S., 1943.—[Clinical aspects of human infection with *Hymenolepis diminuta*.] 12 (2), 94–95. [In Russian.]
- g. IONINA, N. S., 1943.—[Clinical aspects and treatment of *Hymenolepis* infection.] 12 (2), 95–96. [In Russian.]
- h. KALANTARYAN, E. V., BADALYAN, A. L. & ARUMYUNYAN, A. A., 1943.—[Result of treatment for taeniasis in Armenia.] 12 (3), 77–82. [In Russian.]
- i. LONGINOV, A. N., 1943.—[Development of *Ascaris lumbricoides* ova in the soil of Ivanova city.] 12 (3), 86–87. [In Russian.]
- j. HEFT, V. M., 1943.—[The testing of Soviet chenopodium oil against ascariasis.] 12 (3), 88. [In Russian.]
- k. SHULMAN, E. S. & HEFT, V. M., 1943.—[The testing of Soviet hexylresorcinol.] 12 (3), 88–89. [In Russian.]
- l. KOVALEVA, A. V., 1943.—[Echinococcus in dogs at Stalinabad.] 12 (3), 89. [In Russian.]
- m. KASIMOV, B., 1943.—[First case of *Ostertagia ostertagi* in man in Azerbaidzhan.] 12 (5), 81. [In Russian.]
- n. BERKHINA & MUKVOZ, 1943.—[On the treatment of hymenolepidosis.] 12 (5), 82–83. [In Russian.]
- o. VOPLENKO, V. V., 1943.—[Incidence of helminths in young children at Baku.] 12 (5), 83–85. [In Russian.]
- p. SHIKHOBALOVA, N. P., 1943.—[The distribution of ascariasis and trichuriasis in Central Asia.] 12 (6), 69–77. [In Russian.]
- q. IONINA, N. S. & KOVALEVA, A. V., 1943.—[Helminths in man in Tadzhikistan.] 12 (6), 77–81. [In Russian.]
- r. SHIKHOBALOVA, N. P., 1943.—[The main causes of the local incidence of ascariasis and trichuriasis : a survey of the literature.] 12 (6), 81–85. [In Russian.]

(357a) Among the various stains, which the authors used to differentiate living from dead eggs of *Hymenolepis nana*, were brilliant cresyl blue, safranin, neutral red, eosin Merck and eosin for blood staining. These stained the oncosphere in the dead eggs particularly clearly in contrast to the rest of the egg which remained transparent. Living eggs either remained unstained or they stained uniformly. The best results were obtained by staining with 1 in 8,000 brilliant cresyl blue solution for one hour, safranin for 2 hours, and 1 in 15,000 safranin solution for 3 to 5 hours. The authors also found that nearly all eggs kept at a temperature of 63°C. or higher for 15 minutes were killed and 17% to 23% at 55° to 60° C., but at 43° to 47°C. viability of eggs was unaffected. In water, eggs of *H. nana* survive one to two and a half months or longer, depending on the time of year. C.R.

(357b) From a detailed study of the rate of excretion of *Hymenolepis nana* eggs among 43 children, Gorodilova found that in 44.2% of the cases the number of eggs did not exceed 10,000 per g. of faeces, in 37.2%, 1,000, but in 18.6% the number of eggs approached 50,000. During the infection the excretion of eggs is irregular and shows intervals of increasing, stabilized, and decreasing numbers of eggs or entire absence of eggs. Basing her observations on the number of eggs passed and on the type of character of these intervals the author described three types of excretion : (i) intermittent, (ii) remittent and (iii) continuous. These types are mainly dependent on the number of parasites present and according to the author there exists a correlation between the number of worms and the number of eggs excreted by each worm. Thus, from the number of eggs per g. of faeces the intensity of infection can be determined. More than one examination of faeces is therefore essential before the intensity of the infection or the efficacy of the treatment with male fern can be determined. In 8% of the children complete cures with a single dose of male fern were obtained, but 28% of the cases were cured

only temporarily. In addition it was possible by this treatment to control infection to such an extent that types (ii) and (iii)—moderate and severe infections—were reduced to type (i)—mild infection. C.R.

(357c) Kevorkov, reviewing some of the world literature, discusses the identity of *Hymenolepis nana* of man and *H. murina* of rats and mice. The author, with the assistance of Schleicher, found that in Tashkent 5.6% of the rats and 1.6% of the mice were infected. In experiments with the assistance of Repkin it was found that pellets of faeces containing eggs dried up in summer in a period of 5 to 15 minutes and that all the eggs were killed. In the author's opinion rats and mice appear to act as reservoirs of human infection. C.R.

(357d) According to Kevorkov the difficulty in the treatment of *Hymenolepis nana* is due to the position of the tapeworm in the small intestine and to the movement within the section of the intestine where the tapeworms are lodged. Therefore the usual doses of male fern may reach this part of the intestine in only relatively small amounts. The author gives results of experiments showing movements of male fern in the intestine of dogs and compares it with the action of this drug in children. C.R.

(357e) The author, studying the role of the environment in the epidemiology of helminthiases, found that among 2,076 children 1,502 were infected with helminths, and in 332 cases the eggs of worms were found under their finger nails. Of 1,690 samples taken from familiar objects in their classrooms, bedrooms, etc., 474 samples contained eggs of *Enterobius*, *Ascaris*, *Trichuris*, *Taenia* and *Hymenolepis nana*. Among 624 workers in food production and cleansing departments, infestation was found in 240 cases and 50 of these carried eggs under their finger nails. Again, of 1,463 samples taken from the familiar objects of their environment, 91 were infected with eggs of all the above mentioned species except *Trichuris*. According to the author footwear plays as important a role as hands in the dissemination of helminths: infection may also be air-borne. C.R.

(357f) The author describes the symptoms and treatment of 5 cases of infection with *Hymenolepis diminuta*. C.R.

(357g) Ionina, studying 37 cases of *Hymenolepis nana* (4 adults and 33 children), describes the symptoms and treatment with male fern and pumpkin seeds. The efficacy was 24.1% and 14.2% respectively. C.R.

(357h) The authors give detailed data on the results of treatment against *Taenia saginata* based on 1,063 persons of different sex and age. C.R.

(357i) Longinov found in Ivanova city that the eggs of *Ascaris lumbricoides* mixed with different types of soil and buried at various depths in a shady position reach the infective stage within 3 months from the beginning of May, 2 months from June to July, and one to one and a half months from the beginning of August. C.R.

(357j) Oil of chenopodium used by the author against ascarids in dogs in a dose of 0.05 to 0.1 g. per kg. body weight gave an efficacy of 93.6 to 98.9%. The same drug was effective in 15 human patients against *Ascaris* and *Enterobius*, and in 3 of these cases single specimens of *Trichuris* were also expelled. C.R.

(357k) Shulman & Heft in 1939-1940 found in the treatment of 161 patients (ages varying from 2½ to 62 years) infected with *Ascaris* and *Trichuris* that hexylresorcinol gave an efficacy of 71.4%. Later dosage of santonin increased it by 13.4%. Of 12 patients treated with santonin alone, 4 were completely cured, and the remaining 8 only after an additional dose of hexylresorcinol. C.R.

(357l) In Stalinabad in 1932, 238 dogs were examined and 99.16% were found to be infected with helminths; 27.7% were infected with *Echinococcus granulosus*. The data obtained in 1938, when 200 dogs were examined, show a lower total helminth infestation at 81%, with *E. granulosus* infection down to 0.5%. At the same time post-mortem examination of 255 human patients revealed 4 cases of hydatid. C.R.

(357m) Kasimov found *Ostertagia ostertagi* and *Trichostrongylus colubriformis* in the small intestine of a man at autopsy. This is a first record of *O. ostertagi* in man and the author gives a detailed description of the male of this species. C.R.

(357n) Berkhina & Mukvoz found, in the treatment of 100 children (of various ages up to 12 years) infected with *Hymenolepis nana*, that a single dose of 0.3 gramme male fern per year of age gave an efficacy of 26%. Treatment according to the method of Podyapolskaya & Vasilkova (two doses of 0.1 to 0.15 gramme male fern on 2 consecutive days and two further doses at 10-day intervals) cured 62% of the children. Later on, the authors modified the second method by giving the children male fern 3 times in a period of 25 days (second dose on the 15th day and third dose 10 days later). The authors found that after treatment the weight of the children increased, the appetite improved, and the nervous system strengthened. C.R.

(357o) Vopenko, examining 6,522 children (ages varying from 1 month to 7 years), found that 41.9% were infested with helminths. In two children 2 and 7 months of age, respectively, the author found *Trichuris trichiura*, and in one 6 months old, *Ascaris lumbricoides*. Among the children of 1 to 7 years of age he found *A. lumbricoides* in 7.3%, *T. trichiura* in 18.6%, *Hymenolepis nana* in 7.3% and *Enterobius vermicularis* in 17.3%. There were also a few cases infested with *Taenia*, hookworms and trichostrongyles. C.R.

(357p) Shikhobalova reports on a helminthological expedition to a mountainous district, 990 to 2,600 metres above sea level, of northern and central Tadzhikistan to determine the distribution of *Ascaris lumbricoides* and *Trichuris trichiura* among native schoolchildren. In addition *Hymenolepis nana*, *Taenia saginata*, *Diphyllobothrium latum* and *Enterobius vermicularis* were found. According to the author, the distribution of ascariasis and trichuriasis depends on the one hand on sanitation and general living conditions, and on climatic and microclimatic conditions on the other. C.R.

(357q) Ionina & Kovaleva, examining the native population of the mountainous district (1,408 to 2,350 metres above sea level) of Tadzhikistan found that of 3,140 people (1,770 adults and 1,470 children) 88.2% were infested with helminths in the following proportions: *Ascaris lumbricoides* 81.7%, *Trichuris trichiura* 43.3%, *Hymenolepis nana* 2.4%, *Enterobius vermicularis* 3.7%. In the valley district, 380 to 990 metres above sea level, 5,580 people (2,806 adults and 2,774 children) were examined of whom 23.2% were infested as follows: *A. lumbricoides* 11.2%, *T. trichiura* 4.4%, *H. nana* 7.0% and *E. vermicularis* 2.1%. In both groups there were some cases of *Taenia saginata*, *Diphyllobothrium latum* and *Ancylostoma duodenale*. C.R.

(357r) The author, reviewing the world literature published during the last 20 years on ascariasis and trichuriasis, describes the conditions influencing the development and distribution of the parasites concerned in these diseases. C.R.

358—Medicina. Buenos Aires.

- *a. BREA, M. M., 1943.—“Hidatidosis y tuberculosis pulmonar.” 3, 424-441.

359—Medicina. Madrid.

- a. AGUILAR RODRÍGUEZ, I., 1943.—“Cisticercosis múltiple con localización cerebral.” 11 (3 (II)), 223-234.
*b. PIULACHS, P. & ALVIRA MALLEN, M., 1943.—“Consideraciones clínicas sobre los casos de hidatidosis pulmonar.” 11, Part II, 367-374.

360—Medicina. Revista Científica Colombiana.

- a. NAAR, A. B., 1943.—“Problemas de higiene parasitaria de la guerra actual. Enfermedades que le esperan a los aliados en los nuevos frentes de Africa, Asia y Oceanía. A su regreso las tropas americanas nos traerán y se arraigarán los males exóticos de esos continentes?” 5 (50), 39-40.

361—Medicina. Revista Mexicana.

- a. GONZÁLEZ CH., J. L., 1943.—“Las manifestaciones clínicas y el diagnóstico de la cisticercosis cerebral.” 23 (449), 499-526; (450), 527-545.

(361a) González considers the question of cerebral cysticercosis in Mexico where it is very common, due to deficiencies in hygiene. Indications of the disease, before neurological symptoms appear, can usually be gained by means of Weinberg's reaction, by examination of the cerebro-spinal fluid, and by radiology. Treatment by medicine is useless except to quieten the symptoms. Surgery is often effective. P.A.C.

362—Medicina Española.

- a. ROMERO CALATAYUD, A., 1943.—“Los vermes intestinales.” 10 (55), 179-184.

(362a) [For earlier parts of this paper see Helm. Abs., Vol. XII, Nos. 196b & 196c.]

363—Medicina Moderna. Valparaiso.

- a. TOBAR, R. G., 1943.—“Panorama de investigaciones parasitologicas en los Estados Unidos.” 16 (6), 218-229.

364—Medizinische Welt.

- *a. VOLAVSEK, E., 1943.—“Ein Fall von primärem Netzechinokokkus.” Year 1943, 369.

365—Memorias do Instituto Butantan.

- a. RUIZ, J. M., 1943.—“*Catadiscus Freitaslenti* sp.n. (Trematoda : Paramphistomoidea), parasito de ofídeo neotrópico ; observação sobre a presença de dois canais eferentes no género *Catadiscus* Cohn, 1904.” 17, 29-34. [English summary p. 33.]
- b. RUIZ, J. M., 1943.—“*Neotangium travassosi* gen.n., sp.n. (Trematoda : Paramphistomoidea), parasito de quelôrio marinho. Chave dos géneros da familia Microscaphidiidae Travassos, 1922.” 17, 35-45. [English summary p. 43.]
- c. ARTIGAS, P. DE T., RUIZ, J. M. & LEÃO, A. T., 1943.—“Algumas notas sobre o genero *Opisthgonimus* Lühe, 1900. Descrição de *Opisthgonimus serpentis* sp.n., trematoide de ofídeo.” 17, 47-59. [English summary pp. 58-59.]

(365a) Ruiz describes and figures *Catadiscus Freitaslenti* n.sp. from the small intestine of the snake, *Liophis miliaris*. The new species differs from all other members of the genus in the possession of 2 vasa efferentia. A.E.F.

(365b) *Neotangium travassosi* n.g., n.sp., described from the intestine of a marine turtle, is placed in the Microscaphidiidae: a key to the genera of this family is included. The genus *Denticauda* Fukui, 1929, reduced by Travassos (1932) to the synonymy of *Parabaris*, is re-instated and assigned to the Microscaphidiidae. A.E.F.

(365c) Artigas et al. review the genus *Opisthgonimus* (type species, *O. lecithonotus*). The genus *Westella* Artigas, Ruiz & Leão, 1942 is made a subgenus of *Opisthgonimus* and a new subgenus *O. (Opisthgonimus)* created. *O. (Westella) serpentis* n.sp., from the snake *Tomodon dorsatus*, is described and figured. A.E.F.

366—Memorias do Instituto Oswaldo Cruz.

- a. TRAVASSOS, L. & FREITAS, J. F. TEIXEIRA DE, 1943.—“Relatório da sétima excursão científica do Instituto Oswaldo Cruz, realizada á zona da Estrada de Ferro Noroeste do Brasil em Maio de 1942.” 38 (3), 385-412.

(366a) Travassos & Freitas describe the results of an expedition to the district traversed by the North Western Railway of Brazil, when representatives of all the main vertebrate groups and many insects were examined for helminths. Birds seemed to be most frequently parasitized, 71.9% proving positive for helminths: nematodes formed the highest percentage among the parasites collected. Details of individual host-parasite relationships are not given. P.A.C.

367—Münchener Medizinische Wochenschrift.

- *a. GAASE, A., 1943.—“Der Trichinellen-Antikörpernachweis im Liquor cerebrospinalis und der Nachweis von Trichinellentoxin in der Hirnsubstanz durch die Komplementbindungsreaktion.” 90 (42/43), 612.

368—New Zealand Medical Journal.

- a. FULTON, J. R. H., 1943.—“Filariasis.” 42 (232), 256–257.
 b. BARNETT, L., 1943.—“Hydatid disease in New Zealand. A brief note on incidence and prevention during the year 1942.” 42 (232), 260–261.

(368a) Fulton discusses the possibility of soldiers with filarial infections returning from Pacific theatres of war. He describes the early symptoms of the disease and deals very briefly with treatment. A.E.F.

(368b) At the four main municipal abattoirs 35% of the livers of 1,000,000 sheep and 200,000 cattle had to be rejected as unsaleable owing to hydatid. A large scale experiment in the regular dosing of dogs with arecoline tablets is being made in the Styx district of Central Otago. R.T.L.

369—Norsk Veterinaer-Tidsskrift.

- a. ANON, 1943.—“Fra Innenriksdepartementet. Veterinaeravdelingen. Forordning om trikinose nr 8 av 10 Oktober 1943.” 55 (11), 508–510.

(369a) As a new measure for the control of trichinosis in Norway the infectious diseases of animals act of 1894 has been amended so that the meat of fur animals cannot be used as human or animal food unless it has been cooked for at least 2½ hours. Specimens from the carcass of all animals pelted must be examined officially for trichinosis. All fur animals on infected farms are tested serologically and only if every animal has proved to be free from infection at the annual pelting is this control withdrawn. R.T.L.

370—North American Veterinarian

- a. WOOLF, F. P. & SIMMS, B. T., 1943.—“Studies of the toxicology of phenothiazine in horses and mules.” 24 (10), 595–599.

(370a) Anaemia and icterus followed the administration of phenothiazine to horses on a diet of white corn and poor grade Johnson-grass hay, while there were no symptoms in those animals on a diet of oats and No. 2 leafy alfalfa hay. Mules showed no abnormal symptoms on either diet. R.T.L.

371—North Carolina Medical Journal.

- *a. SISK, W. N., 1943.—“The unsuspected prevalence of intestinal parasites in North Carolina.” 4 (12), 513–517.

372—Nova Scotia Medical Bulletin.

- a. SMITH, R. P., 1943.—“Trichiniasis in Nova Scotia now.” 22 (9), 195–207.

(372a) In a paper devoted largely to a review of recent work on the incidence, diagnosis, treatment and prevention of trichiniasis, Smith states that 55 cases have occurred in Nova Scotia. Of these 29 were adult females, 5 girls, 7 adult males and 4 boys. 43 showed eosinophilia and 4 only were positive to muscle biopsy. R.T.L.

373—Papers of the American Tung Oil Association.

- *a. LARGE, J. R., 1943.—“Root-knot of tung and its control.” 9, 34–37.

374—Pasteur. Revista Mensual de Medicina.

- *a. RUIZ SANCHEZ, F., 1943.—“Bilharziosis mansoni.” 1, 135–142.

375—Pediatria de las Américas.

- *a. ODRIOSOLA, R., 1943.—“Estudio clínico de la anquilostomiasis en el niño.” 1, 449–459.
 *b. LOZADA DEL RIO, G., 1943.—“Tratamiento de las parasitosis intestinales en el niño.” 1, 587–601.
 *c. BONAVA, J., 1943.—“Aspectos clínico-radiológicos de la hidatidosis equinocócica primitiva del pulmón en la infancia.” 1, 705–729.
 *d. CÁRDENAS MORA, D., 1943.—“Tenia *Hymenolepis nana*.” 1, 761–768.

376—Plant Disease Reporter.

- a. PARRIS, G. K., 1943.—“Reduction in the yield of celery caused by the root-knot nematode.” 27 (12/13), 234.
- b. PARRIS, G. K. & JEHL, R. A., 1943.—“Root-knot nematode on lima beans in Maryland.” 27 (12/13), 235.
- c. HOYMAN, W. G., 1943.—“Resistance of the new non-shattering Armredo soybean to rootknot.” 27 (15), 293-294.
- d. ELLIS, D. E., 1943.—“Root knot resistance in *Lycopersicon peruvianum*.” 27 (18), 402-404.
- e. HARRIS, M. R., 1943.—“Diseases of glass house vegetables in Ohio.” 27 (23), 648-649.
- f. BLODGETT, E. C., 1943.—“Stem nematode on potato: a new potato disease in Idaho.” 27 (24), 658-659.
- g. TAYLOR, A. L., 1943.—“Nematode survey in Florida: effect of rootknot and other nematodes on celery in the Sanford area.” 27 (25), 706-708.

(376a) Parris gives the weights of celery plants heavily infected with *Heterodera marioni* both before and after trimming for market, and compares them with the weights of relatively uninfected plants from the same area. Under the prevailing conditions root-knot caused a reduction in yield of 22 to 36% in untrimmed plants and 24 to 48% in trimmed celery. M.T.F.

(376b) On the sandiest part of a 10-acre field lima beans, variety Fordhook, were severely affected by root-knot. The galled plants were found to be deficient in phosphorus although there was sufficient phosphorus in the soil and the normal plants on the heavier soil were not deficient. Evidence shows that there were active larvae in the soil when the beans were planted early in May. The grower sustained approximately 20% loss of crop, which was partly due to the hot dry season. M.T.F.

(376c) After three months' growth under greenhouse conditions in soil heavily infected with *Heterodera marioni* the new soybean variety Armredo showed moderate infection while Arizona 588 and Arizona 056 were heavily infested. Brabham cowpea, grown under the same conditions, was moderately resistant. M.T.F.

(376d) As compared with 11 common varieties of the tomato (*Lycopersicon esculentum*), three introductions of *L. peruvianum* (P. I. Nos. 126928, 126929 and 126944) showed marked resistance to root-knot. In one replicated experiment the root-knot index for *L. peruvianum* (P. I. No. 126929) was 1.4 as compared with 79.1-63.3 for three common varieties of tomato. 7% of the plants were galled, but the galls were small. M.T.F.

(376e) Harris found that in one glasshouse at Cincinnati where the soil had been unsatisfactorily treated with 1% formalin at the rate of 1 gallon per square foot, many of the plants were suffering from Fusarium wilt and a few of them had been killed outright by the root-knot nematode, *Heterodera marioni*. T.G.

(376f) Blodgett reports the first recorded attacks of the stem eelworm, *Ditylenchus dipsaci*, on potato tubers in U.S.A. The affected tubers were first found on a crop in process of lifting in a 4-acre field close to Aberdeen, Idaho, on the variety Netted Gen. Diseased tubers were next found in two other fields out of six examined. The parasite occurred in numbers under the skin lesions of the diseased tubers. T.G.

(376g) Taylor reports that the root-knot nematode, *Heterodera marioni*, is present in most celery seedbeds and adjacent fields in the Sanford district of Florida. It is much more troublesome on plants raised early in the season than on those raised later and is practically negligible on the late crop. The same parasite produced no damage of economic importance on lettuce, cabbage or eggplant, though peas were found to suffer somewhat. On some celery roots small lesions, sometimes terminal and sometimes girdling the root, were found. Associated with these were *Paratylenchus* spp. T.G.

377—Poultry Farmer.

- a. SIDNEY, E. M., 1943.—“Tapeworms and treatment.” 109 (2837), 11.

(377a) Sidney very briefly mentions *Taenia pisiformis* and *T. serialis*, cestodes of dogs which need rabbits to complete their life-cycle, and suggests a method for the surgical removal of the coenurus. P.A.C.

378—Praxis.

- a. NICOD, M., 1943.—“De l'efficacité du violet de gentiane dans le traitement de l'oxyurase.” 32 (38), 675-677.

(378a) Nicod has treated 30 cases of enterobiasis in children with gentian violet. The dosage was 0.01 gramme per day per year of age for 8 days, repeated after an 8-day interval. This treatment is stated to have given good results in all cases, judged by absence of eggs from the faeces, although it is admitted that adequate faecal examinations were made in only 13 out of the 30 cases. A.E.F.

379—Prensa Médica Argentina.

- a. NIÑO, F. L., 1943.—“Apendicitis verminosa por *Enterobius vermicularis*.” 30 (1), 30-36.
 b. FINOCHIETTO, R., 1943.—“Quiste hidático en la fosa ilíaca derecha. (Versión taquigráfica).” 30 (43), 2054-2056.
 c. PEREIRA TORRES, R. A. & ROSENBLATT, S., 1943.—“Quiste hidatídico de tiroides y adenoma simple.” 30 (45), 2152-2154.
 *d. STEINBERG, I. R. & BOUVIER, F. M., 1943.—“Meningoencefalitis verminosa; contribución a su estudio.” 30, 2379-2381.

380—Proceedings of the American Society for Horticultural Science.

- a. SCOTT, L. E., 1943.—“Comparison of young peach trees on Shalil and Carolina ‘natural’ rootstocks in nematode infested soil.” 43, 115-118.
 b. LONG, J. C. & WHITEHOUSE, W. E., 1943.—“Variations in root knot nematode infection of various lines of peach progenies at Chico, California.” 43, 119-123.

(380a) One-year-old peach trees of the variety Halehaven budded on Shalil and on Carolina “natural” rootstocks were planted in alternate rows in an old orchard having sandy soil infested with the root-knot nematode. During the first season, which was dry, the gain in cross-section area of the trunks was greater in the trees budded on Shalil than on Carolina “natural” rootstocks. During the winter 5 of the former and 82 of the latter (each out of 140 planted) died. The roots of the 82 trees all showed root-knot of varying degree, but 50 trees on Shalil stock, examined in the second season of growth, were free from galls. The remainder of the trees on “natural” stock were also galled, even at a depth of 6 feet. It is concluded that peach trees on Shalil stock show resistance to nematode injury and will grow normally during the first two years in the soil of an old orchard infested with the root-knot nematode. M.T.F.

(380b) Forty-seven varieties of peach were grown from seed in sandy soil infected with the root-knot nematode, *Heterodera marioni*, and nine showed a high degree of resistance, as judged by macroscopic examination of the roots for galls during two seasons' growth. The resistance found by other workers in Shalil and Yunnan progenies is confirmed and is found to be dominant in open-pollinated progenies of these strains. It is also shown that if resistance is diluted, the pollen parent may have an important influence, and that individual seedlings from the same lot of imported seed may give widely different degrees of resistance to their progenies, which can only be determined by comprehensive tests. M.T.F.

381—Proceedings of the Indian Academy of Sciences. Section B.

- a. KAW, B. L., 1943.—“Studies on the helminth parasites of Kashmir. Part II. On two new trematodes of the subfamily Pleurogenetinae Looss (1899) with a review of the genus *Pleurogenes* Looss (1896).” 18 (5), 97-108.
 b. BHALERAO, G. D., 1943.—“On two trematodes from fishes in India.” 18 (5), 119-124.

(381a) Kaw describes *Prosotocus kashabia* n.sp. from *Rana cyanophlyctis* and gives a key to the six species of the genus. *Pleurogenoides bufonis* n.sp. is also described, from *Bufo viridis*, and included in a key with 13 other species of this genus. *Pleurogenes* Looss is reviewed with related genera and *Pleurogenes lobatus* Ozaki is removed to a new genus, *Pleurolobatus* n.g., on account of the position of the genital pore and the arrangement of vitellaria in bunches. *Loxogenes* Stafford is redefined to include only *L. bicolor* Krull, though the genotype *L. arcanum* (Nickerson) is removed to the genus *Pleurogenoides* and *L. liberum* Senso is left *incertae sedis*. N.G.S.

(381b) Specimens of *Stomachicola muraenesocis* Yamaguti, described by Bhalerao from *Muraenesox cinereus* from Indian waters are shown to differ in several respects from the type from Japanese waters, though these variations are regarded as occurring within specific limits. "*Clinostomum indicum* Bhalerao, 1940" is described as a new species; the immature specimens occurred in the subcutaneous tissue of *Notopterus notopterus* from Poona. This metacercaria most nearly resembles that of *C. delagi* Tubangui, but it is distinguished from it by a number of characters including the branched testes. N.G.S.

382—Proceedings of the Indian Science Congress.

- a. TRIVEDI, J. J. & NARGUND, K. S., 1943.—"Synthetical anthelmintics. Synthesis of α -alkyl- α -p-methoxyphenylbutyrolactones." [Abstract.] 29th Congress (1942), Part III, 85.
- b. DAYAL, J., 1943.—"On an undescribed species of *Aspidogaster* from the intestine of the freshwater fish, *Barbus tor* (Ham.)." [Abstract.] 29th Congress (1942), Part III, 151.
- c. INAMDAR, N. B., 1943.—"On an undescribed species of avian cestode from Dharwar, India." [Abstract.] 29th Congress (1942), Part III, 152.
- d. AMIN, M., 1943.—"On the taxonomy of some species in the genus *Avitellina* (Cestoda)." [Abstract.] 29th Congress (1942), Part III, 152.
- e. GUPTA, N. K., 1943.—"Paramphistomid parasites of oxen and buffaloes in Lahore." [Abstract.] 29th Congress (1942), Part III, 152.
- f. BHALERAO, G. D., 1943.—"On two helminths of *Mastacembelus pancalus* (Ham.) including a new record of *Azygia* from India." [Abstract.] 29th Congress (1942), Part III, 152.
- g. BHALERAO, G. D., 1943.—"On the need for a revision of the genera of holostome trematodes described from India." [Abstract.] 29th Congress (1942), Part III, 152-153.
- h. BHALERAO, G. D., 1943.—"Some metacercarial forms of Clinostomidae (Trematoda) from India." [Abstract.] 29th Congress (1942), Part III, 153.
- i. BHALERAO, G. D., 1943.—"The genus *Cephalogonimus* in India and Burma." [Abstract.] 29th Congress (1942), Part III, 153.
- j. SINGH, S. N., 1943.—"Observations on *Syphaciella indica* Maplestone (Nematoda) from Hyderabad (Deccan)." [Abstract.] 29th Congress (1942), Part III, 153.
- k. BHALERAO, G. D. & KALAPPAH, C. K., 1943.—"Some helminths of domestic animals in Coorg." [Abstract.] 29th Congress (1942), Part III, 191-192.
- l. GIDEON, P. W., 1943.—"The biological control of guineaworm in some villages of the Dharwar district." [Abstract.] 29th Congress (1942), Part III, 194.
- m. RAFAY, S. A., PADMANABHAN, S. Y. & KHANNA, K. L., 1943.—"Control of sugarcane seedling disease and nematode injury." [Abstract.] 29th Congress (1942), Part III, 218.
- n. PARANJPE, K., PHALNIKAR, N. L. & NARGUND, K. S., 1943.—"Synthetical anthelmintics. Synthesis of α -alkyl β -p-methoxy (hydroxy) phenyl butyrolactone." [Abstract.] 30th Congress (1943), Part III, 26.
- o. PARANJPE, K., PHALNIKAR, N. L. & NARGUND, K. S., 1943.—"Synthetical anthelmintics. Synthesis of lactones similar to desmotropo-santonin." [Abstract.] 30th Congress (1943), Part III, 26-27.
- p. SRIVASTAVA, H. D., 1943.—"The morphology and systematic position of *Indocreadium*, a new genus of the family Allocreadiidae." [Abstract.] 30th Congress (1943), Part III, 68.
- q. SRIVASTAVA, H. D., 1943.—"A review of the trematode genus *Opechona* of the family Allocreadiidae, with a description of some new forms from Indian hosts." [Abstract.] 30th Congress (1943), Part III, 68.
- r. SRIVASTAVA, H. D., 1943.—"A review of the trematode genus *Plagioporus* of the family Allocreadiidae, with a description of some new forms from Indian hosts." [Abstract.] 30th Congress (1943), Part III, 68-69.
- s. SRIVASTAVA, H. D., 1943.—"Studies on two representatives of the monogenetic trematode genus *Polystomoides* Ward (family Polystomatidae) occurring in Indian hosts." [Abstract.] 30th Congress (1943), Part III, 69.
- t. SRIVASTAVA, H. D., 1943.—"New amabiliid cestodes from Indian hosts of economic importance." [Abstract.] 30th Congress (1943), Part III, 69.
- u. AMIN, M., 1943.—"On the genitalia of *Helictometra giardi* (Moniez, 1879)." [Abstract.] 30th Congress (1943), Part III, 69-70.
- v. MEHRA, H. R., 1943.—"On the synonymy of the genera *Proalarioides* Yamaguti and *Travassosstomum* Bhalerao and of the species *Proalarioides tropidonotis* Vidyarthi and *Travassosstomum natritis* Bhalerao." [Abstract.] 30th Congress (1943), Part III, 70.
- w. MEHRA, H. R., 1943.—"On certain new and already known distomes of the family Cyathocoryliidae Poche from northern India with a discussion on the classification of the family." [Abstract.] 30th Congress (1943), Part III, 70-71.
- x. MEHRA, H. R., 1943.—"Geographical distribution and evolution of the family Cyathocoryliidae Poche." [Abstract.] 30th Congress (1943), Part III, 71.

- y. BHALERAO, G. D., 1943.—“The cercarial fauna of the irrigated tract of the Nizam's dominions, with suggestions regarding their relationship to the trematodes parasitic in man, domestic and other animals.” [Abstract.] 30th Congress (1943), Part III, 88.

(382b) Dayal records the presence of *Aspidogaster indicum* n.sp. from the intestine of *Barbus tor*. It can be recognized by the position and size of the genitalia, the nature of the cirrus and the number and disposition of the alveoli of the ventral disc. P.A.C.

(382c) *Shipleyia farrani* n.sp. from *Himantopus himantopus* can be distinguished by the presence of alternating genital pores. P.A.C.

(382d) Amin suggests that neither *Avitellina southwelli* nor *A. sandgroundi* are valid species, but are identical with *A. centripunctata*. They seem to have been described from contracted species which have shown crowded and distorted genitalia. P.A.C.

(382e) Gupta finds that oxen and buffaloes in Lahore harbour 3 species of *Paramphistomum*. Of these *P. cervi* is the commonest, while *P. crassum* and *P. explanatum* are rare. P.A.C.

(382f) [For abstract of this paper see Helm. Abs., Vol. XI, No. 405a.]

(382g) [For abstract of this paper see Helm. Abs., Vol. XI, No. 405c.]

(382h) [For abstract of this paper see Helm. Abs., Vol. XI, No. 246a.]

(382i) [For abstract of this paper see Helm. Abs., Vol. XI, No. 74a.]

(382k) Bhalerao & Kalappa have recovered a number of helminth parasites from domestic animals in Coorg. *Trichostrongylus leporis* is recorded in India for the first time. Females of *Gyalocephalus capitatus* were found occasionally while the males have never been found there. *Ancylostoma braziliense* seems to be common. P.A.C.

(382m) The authors record, for the first time in India, “numerous nematodes” in the rootlets of diseased sugar-cane seedlings. The seedlings showed loss of colour in the leaves and some were attacked by a fungus. Control of the disease was obtained by growing seedlings in soil heated to 95°C. for one hour, or watering with 1 in 10,000 copper sulphate solution or Cheshunt compound. Watering bi-weekly with 1 in 10,000 mercuric chloride solution is said to be effective against nematodes. M.T.F.

(382p) Srivastava describes *Indocreadium longicirrus* n.g., n.sp., a trematode parasite of marine fish at Karachi. The new genus differs from related genera in the possession of a much elongated cirrus sac. The position of the genital pore and the acetabulum are further characteristic features. P.A.C.

(382q) Srivastava describes 3 species of the genus *Opechona*, presumably new ones but the names and definitions are not given in the available abstract of the article. He is of the opinion that the generic name *Pharyngora* is not valid and must be discarded in favour of *Opechona*. P.A.C.

(382r) In an original article Srivastava describes 3 new species of the genus *Plagioporus*, but in the short summary available for consultation neither names, hosts nor descriptions are given. The author has apparently reviewed the genus as a whole. P.A.C.

(382s) In an original paper read to the 30th Congress Srivastava has redescribed *Polystomum kachugae*, a parasite of the mouth and oesophagus of tortoises near Allahabad, and has further discussed the genus and its species. P.A.C.

(382t) Srivastava has apparently described 2 members of the family Amabiliidae from Indian hosts—the first records of the occurrence of this family in India. No identifications are mentioned in his own abstract of the article. P.A.C.

(382v) Mehra suggests that the genus *Proalarioides* contains 2 species. Of these *P. serpentis* is already described accurately but *P. tropidonotis* should also contain not only its recognized forms but also *Travassosstomum natritis*, a species created by Bhalerao. Therefore the species and generic names should be dropped as should also the subfamily Travassosstominae. P.A.C.

(382w) Having reviewed the family Cyathocotyliidae, Mehra concludes that certain genera are not valid. *Linstowiella* can be incorporated into *Prohemistomum*, and *Cyathocotyloides* should pass into *Holostephanus*. *Szidatia joyeuxi*, the only species of this genus, is a member of *Gogatea* and the generic name must therefore disappear. *Mesostephanus burmanicus* of Chatterji can also belong to the genus *Gogatea*. He describes a number of new species, whose names and descriptions are not however given in the available account of the paper. His further review of the family and his new classification make it necessary for certain changes in subfamilies, and some names have to disappear. These are the subsubfamily Prosostephanini Dubois and the Szidatinae which latter is now replaced by Gogateinae nom. nov. There are also 4 other valid subfamilies, viz., Prohemistominae, Cyathocotylineae, Prosostephaninae Szidat, 1936 and Pseudhemistominae. P.A.C.

(382y) [For abstract of this paper see above No. 333f.]

383—Proceedings of the Indiana Academy of Science.

- a. HEADLEE, W. H. & HOPP, W. B., 1943.—“Intestinal parasite infections of 203 university freshmen.” 52, 196–200.

384—Proceedings of the Institute of Medicine of Chicago.

- a. TALIAFERRO, W. H., 1943.—“Antigen-antibody reactions in immunity to metazoan parasites.” 14 (12), 358–368.

(384a) Taliaferro reviews our knowledge of immunity to metazoan parasites and stresses the importance of precipitins in immunity to various intestinal nematodes. He is of the opinion that antibodies in protective serum act largely as precipitins, uniting with the precipitinogens exuding from the various orifices and thus affecting the nutrition of the parasite. The various parasite tissues have different antigenic value—in certain cases the parasite eggs seem to contain the highest concentration of antigen, and effective antigens are often different at the various stages of the parasite's life history. P.A.C.

385—Proceedings of the Royal Society of Medicine.

- a. ASHTON, N. H., 1943.—“Case of pregnancy complicated by convulsions due to cysticercosis cellulosa.” 36 (10), 529–530.

(385a) Ashton describes the clinical symptoms and post-mortem appearance of a pregnant woman who harboured *Cysticercus cellulosae* in the brain, voluntary muscles and heart. The infestation was of about 12 years standing. Many of the cysts were dead and the contents necrotic and were surrounded by a fibrous host tissue capsule, even in the brain. P.A.C.

386—Proceedings of the Rudolf Virchow Medical Society in the City of New York.

- a. ALTMANN, F., 1943.—“Trichinosis of the tonsillar capsule.” 1 (for 1942), 64.

387—Proceedings of the United States Live Stock Sanitary Association.

- a. ANON, 1943.—“Important internal parasites of food producing animals in the United States.” 46th Annual Meeting (1942), 163–172.

(387a) This is a report on the parasitic diseases which may attack food animals in U.S.A.—cattle, sheep, pigs and poultry are considered. *Fasciola hepatica* is important in the western districts in cattle. Gastro-intestinal helminths in sheep are prevalent everywhere in the country and cause considerable losses: nodular worms and lungworms are present but cause less loss. Sheep are mainly the hosts of the prevalent cestodes and in some northern states there may be considerable mortality in the summer months as a result of cestode infestation. *Trichinella spiralis* becomes important sporadically and the present habit of feeding more garbage to swine has led to its recurrence. The committee which produces this report recommends the well-tried control methods for the prevention of parasitic diseases, and drugs for use when prevention has failed. P.A.C.

388—Radiology.

- a. EVANS, jr., W. A., 1943.—“Echinococcus cyst of the lung.” 40 (4), 362-366.

389—Revista Argentina de Agronomía.

- a. BURKART, A., 1943.—“El nemátodo del tallo (*Anguillulina dipsaci*) en alfalfares de la provincia de Salta.” 10 (2), 190.
 b. RAGONESE, A. E. & MARCÓ, P. R., 1943.—“Resistencia al nemátodo del tallo de diversas líneas y procedencias de alfalfas.” 10 (4), 378-384.

(389a) Burkart reports the finding of alfalfa attacked by the stem eelworm, *Anguillulina dipsaci*, on an estate in the Valley of Lerma, in the province of Salta, Argentina. The plants were in the fourth year of growth and showed characteristic signs of disease in the stems. Microscopic examination of affected tissues revealed the worms in large numbers. He suggests that measures must be taken to check the spread of the parasite and to obtain, by suitable selection, strains of alfalfa immune to attack. T.G.

(389b) Ragonese & Marcó have tested a number of different samples of alfalfa for susceptibility to attack by the stem eelworm, *Anguillulina dipsaci*. The seed was obtained from 26 sources within Argentina and these were tested against 14 samples of foreign origin. The results are set out in tabular form and in general it is shown that plants resulting from seed of foreign origin show a higher percentage of resistant plants than those resulting from indigenous seed. In two further tables the results obtained in the first generation from the sowing of seed of self-fertilized resistant plants are set out and from these it is clear that resistance to attack can be increased by selection and self-fertilization of plants which have manifested resistance. T.G.

390—Revista Argentina de Neurología y Psiquiatría.

- *a. HOFF, H. & SHABY, J. A., 1943.—“Observaciones sobre la localización de la reabsorción de la vitamina B₁ en el hombre; tratamiento de los síntomas neurológicos de la anquilostomiasis por la vitamina B₁.” 8, 252-255.

391—Revista de la Asociación Médica Argentina.

- *a. BASILICO, jr., M. V., 1943.—“Pneumoquiste hidatídico de hígado.” 57, 288-290.
 *b. ITOIZ, O. A., 1943.—“Equinococcosis primitiva experimental (inmunidad y alergia en la hidatidosis: su expresión anatómica).” 57, 529-536.
 *c. MAININI, C., ORSI, A. & CARABELLI, E. T., 1943.—“Hidatidosis pulmonar bronquiectásica con hemoptisis a repetición; su tratamiento por lobectomía; patogenia.” 57, 649-652.
 *d. JORGE, J. M. & RE, P. M., 1943.—“Hidatidosis cardíaca.” 57, 720-729.
 *e. GRINBLAT, S. & ANTOLA, J., 1943.—“Acción del antígeno hidatídico integral en la hidatidosis experimental.” 57, 831-833.

392—Revista Brasileira de Biología.

- a. JAFFÉ, W. G., 1943.—“Sobre un nuevo fermento proteolítico vegetal de la clase de las papainasas.” 3 (2), 149-157. [English summary p. 157.]
 b. VERSIANI, O. & CAVALCANTI, A. C., 1943.—“As reações de Henry e Henry-Wolff na malária, esquistosomose, doença de chagas e algumas outras entidades clínicas.” 3 (4), 383-390. [English summary p. 389.]
 c. FREITAS, J. F. TEIXEIRA DE, 1943.—“*Catadiscus mirandai* n.sp., parasito de *Hemipipa carvalhoi* Mir.-Rib.” 3 (4), 411-412.

(392a) The sap of the bush *Tabernamontana grandiflora* contains a proteolytic ferment 10 times stronger than papain. Like other papainases it digests living intestinal parasites. Sodium thiosulphate is of value as an activator and is more efficient on the peptone splitting than on the gelatine splitting reaction. R.T.L.

(392b) Henry's reaction and the Henry-Wolff reaction seem to have no value in the diagnosis of schistosomiasis. P.A.C.

(392c) Freitas describes *Catadiscus mirandai* n.sp., a trematode parasite of the large intestine of *Hemipipa carvalhoi* in the state of Espírito Santo, Brazil. It is related to *C. uruguayensis*, but can be distinguished by the size of the prepharynx and ova, and by the general disposition of the vitelline glands. P.A.C.

393—Revista Clínica de São Paulo.

- *a. AMARAL, A. D. F. DO & LEAL, R. A., 1943.—“Nota sobre a incidência de vermes e protozoários intestinais entre soldados do exército, com referência especial aos portadores de cistos de *Endamoeba histolytica*.” 13, 91-101.

394—Revista Española de Tuberculosis.

- a. LA VEGA, J. M., CANGA, A. & BENAVIDES, J., 1943.—“Estudio radiológico y clínico de la equinocosis pulmonar.” 12 (102), 575-605.

395—Revista de Faculdade de Medicina Veterinária. São Paulo.

- a. GANDRA, Y. R., 1943.—“Ocorrência no Brasil da *Anoplocephala magna* (Cestoda-Anoplocephalidae) parasita de equídeos.” 2 (3), 165-168.
b. MATTOS, R. O. DE, 1943.—“Sobre a incidência do *Metastrongylus salmi* (Geddoelst, 1923). Nota prévia.” 2 (3), 211-212.

(395a) Gandra records the presence of *Anoplocephala magna* in Brazil. This is a new geographical record. P.A.C.

(395b) Of 817 swine slaughtered at an abattoir in São Paulo, 62.5% harboured *Metastrongylus salmi* in the bronchi. P.A.C.

396—Revista del Instituto de Salubridad y Enfermedades Tropicales. México.

- a. MAZZOTTI, L. & PASTRANA, A., 1943.—“La investigación de triquinosis en tejidos musculares por el método de digestión.” 4 (4), 337-342. [English summary p. 341.]
b. MAZZOTTI, L. & CHAVIRA, C., 1943.—“Investigación de triquina en 600 diafragmas humanos de la ciudad de México.” 4 (4), 343-351. [English summary p. 350.]
c. MAZZOTTI, L. & OSORIO, M. T., 1943.—“Experimentación sobre pruebas alérgicas intracutáneas en el diagnóstico de la oncocercosis.” 4 (4), 353-357. [English summary p. 357.]

(396a) An investigation to ascertain the prevalence of trichinosis made by Mazzotti & Pastrana shows that routine digestion of suspected trichinosis material is not entirely satisfactory, for calcified cysts and larvae tend to be lost. Direct examination of muscle is recommended using more than 1 gramme of material. P.A.C.

(396b) Examination of 600 bodies for trichinosis in Mexico by Mazzotti & Chavira, using both direct observation and digestion, revealed 5% to be positive, but only three quarters of these were revealed by digestion. It would seem that the incidence of trichinosis is low in Mexico. P.A.C.

(396c) Using specific antigen in dilutions of 1 : 8,000, 1 : 10,000 and 1 : 20,000, Mazzotti & Osorio have investigated the intradermal reactions of *Onchocerca caecutiens*. A high percentage of known carriers gave positive results, but many of the controls, believed to be free from the parasite, also gave positive results. P.A.C.

397—Revista Médica da Bahia.

- *a. FIGUEIREDO, J. DE, 1943.—“A resistência das hemátias na doença de Manson-Pirajá da Silva (contribuição ao seu estudo).” 11, 124-129.

398—Revista Médica de Corrientes.

- *a. DIÁZ, B. E., 1943.—“Oxyurosis incognita.” 1, 133-135.
*b. GARCÍA, J. C., 1943.—“La campaña contra la anquilostomiasis en la provincia de Corrientes.” 2, 5-69.

399—Revista Médica de Costa Rica.

- a. GARCÍA CARRILLO, E., 1943.—“Anquilostomiasis y nefrosis.” 10 (112), 523-526.

400—Revista Médica Latino-Americana.

- *a. GALÍNDEZ, L. & MAGDALENA, A., 1943.—“Contribución al estudio de las parasitosis de la vías digestivas.” 28, 235-236.

401—Revista de Medicina Veterinaria. Buenos Aires.

- a. PIRES, A., 1943.—“La intradermo-reacción en el diagnóstico de la hidatidosis. Antígeno preparado con polvo desecado de membrana prolifera y líquido hidatídico de quistes hidatídicos localizados en el hígado y pulmón de cerdos y bovinos.” 24 (3/4), 140-150.
b. AULT, C. N., 1943.—“Nematodes parásitos de los bovinos y ovinos en la Argentina.” 25 (9/10), 468-487.

(401a) Pires follows up his earlier work on the serological diagnosis of helminths with this article on the diagnosis of hydatid. He describes his method of making antigens from hydatid fluid and proliferating membrane from pig and cattle cysts. Using the Casoni test he compares his antigens with hydatid fluid. The general results agree, but with his antigens the reaction is quicker to appear, though no more intense. P.A.C.

(401b) Ault records for the first time in Argentina the presence of *Trichostrongylus vitrinus*, *Ostertagia trifurcata*, *Marshallagia marshalli*, *Cooperia surnabada*, *Trichuris globosa*, and *Strongyloides papillosus*: 20 other species have been found in cattle and sheep. *Cooperia mcmasteri* is considered to be a synonym of *C. surnabada*. P.A.C.

402—Revista de Medicina Veterinária. Lisboa.

- a. TROPA, E. & DIAS, S., 1943.—“Notas parasitológicas. I. Subsídios para a corografia parasitológica do Norte.” 38 (306), 263-265.

403—Revista Paulista de Medicina.

- *a. MEIRA, J. A., ALVARES CORRÊA, M. O. & MELO ALBUQUERQUE, F. J., 1943.—“Sobre um caso de distomatose pulmonar (paragonimíase) com especial referência sobre a distribuição do *Paragonimus westermani* no Brasil.” 22, 396-410.

404—Revista de la Policlínica Caracas.

- a. NIÑO, F. L., 1943.—“Resultados obtenidos en el tratamiento de la teniasis con un derivado de la acridina.” 12 (70), 152-156.
b. SANABRIA, A., 1943.—“El electrocardiograma en la miocarditis bilharziana.” 12 (71), 203-212.
c. IBARGÜEN, S., 1943.—“Obstrucción intestinal por yeyunitis regional. Estudio etiológico de las enteritis regionales con ocasión de un caso de yeyunitis producido por *Ascaris lumbricoides*.” 12 (72), 264-272.
d. PLAZA IZQUIERDO, L., 1943.—“La esplenectomía en las formas hepato-esplénicas de la Bilharziosis mansoni.” 12 (72), 280-306.
e. OTTOLINA, C. & ATENCIO M., H., 1943.—“Nuevos caminos para el diagnóstico clínico preciso de la Schistosomiasis mansoni.” 12 (73), 348-380.

(404a) Niño has obtained very satisfactory results using a derivative of acridine as a taeniafuge. Of 24 patients 17 were obviously cured, for the head of the tapeworm was found in the stool. Others in which the head was not seen must have been cured, for no segments appeared after a period of several months. The drug is easy to administer and purgatives are unnecessary: there is a wide margin of safety over the clinical dose. P.A.C.

405—Revista de Sanidad y Asistencia Social.

- *a. PRISCO, J. DI, 1943.—“Nota preliminar sobre posibles dermatosis de origen bilharziano y su diagnóstico por la prueba cutánea de la bilharzina.” 8 (5), 1067-1072.

406—Revista de la Sanidad Militar. Buenos Aires.

- *a. FERLONI, A. V. & COVARRUBIAS, A. R., 1943.—“Nuevos casos autóctonos de uncinariasis en la provincia de Tucumán; necesidad de aplicación integral de la ley no. 12.107 en las provincias del norte de país.” 42, 403, 504.

407—Revista de la Sanidad de Policía.

- *a. HAGUE, J. L., 1943.—“Farmacología de los antihelmínticos.” 3, 303-313.

408—Revue Médicale de la Suisse Romande.

- a. MAYOR, G., 1943.—“Etude clinique et anatomopathologique d'un cas d'ostéodystrophie hépatogène.” 63 (7), 579-585.

409—Revue Suisse de Zoologie.

- a. FUHRMANN, O., 1943.—“Cestodes d'Angola.” 50 (4), 449-471.

(409a) A collection of cestodes from some mammals and birds of Angola yielded 20 species of which 5 are new to science, one of which needed the creation of a new genus. *Pseudandrya monardi* n.g., n.sp., a parasite of the carnivore *Paracynictis selousi*, can be distinguished by the arrangement of the genitalia. The testes are few in number and are placed laterally in the segment: the cirrus sac has an external and an internal seminal vesicle. There is a large receptaculum, the genital pores are unilateral and the uterus is reticulate, extending to the periphery of the segment. *Helicometra connochaeti* n.sp., a parasite of the bovine *Connochaetus taurinus*, is recognized by the distribution of the testes: they occupy the entire length of the segment in the lateral parenchyma, external to the excretory vessels. *Chapmania macrocephala* n.sp. is a parasite of the bird, *Otis cafra*. It has a large head with prominent rostellum followed by a distinct neck. The cirrus sac and vagina pass under the nerve. The uterus is sac-like and there is a paruterine organ. *Choanotaenia upupae* n.sp. is a parasite of *Upupa africana*. The uterus is reticulate and occupies the whole segment but does not break up into capsules. *Hymenolepis acirrosa* n.sp., also a parasite of *Upupa africana*, consisted only of fragments without a scolex, but the segments are easily distinguished for the cirrus sac is very long, almost completely filled by the seminal vesicle, while the cirrus proper is represented only by a very short canal. The vagina is large and muscular and surrounded by a layer of apparently glandular cells. P.A.C.

410—Schweizer Archiv für Tierheilkunde.

- a. KRUPSKI, A. & LEEMANN, W., 1943.—“Phenothiazin gegen Darmparasiten der Haustiere.” 85 (6), 234-239.
b. ALLENSPACH, V., 1943.—“Trichinen bei Füchsen.” 85 (9), 380-382.

(410a) Krupski & Leemann report good results with phenothiazine against helminths in horse, sheep, ox, goat, cat and hens. Most received 0.5 gramme per kilo body weight and tolerated it well. Hens will tolerate heavier doses. An ox receiving nearly 1 gramme per kilo body weight, and a cat receiving 0.4 gramme/kilo showed transitory symptoms. The drug was apparently effective against *Moniezia expansa* and *Taenia taeniaeformis* as well as against nematodes. P.A.C.

(410b) In 1942 *Trichinella* inspection of fox flesh was made obligatory in Switzerland. Of 61 carcasses examined during the winter 1942/43, 6 were positive for *Trichinella*. A.E.F.

411—Seed World.

- a. PINCKARD, J. A., 1943.—“Soil fumigant effective against root-knot and meadow nematodes.” 54 (10), 12-13, 46.

(411a) Pinckard states that *Heterodera marioni* causes serious damage to 53 kinds of economic crops in 59 out of the 82 counties of the State of Mississippi and that the damage caused by this parasite to the 403,000 Victory gardens in this state in 1943 is estimated at two million dollars. “D-D”, a mixture of propylene and propane dichlorides, at the rate of one-third ounce poured in the bottom of 6-inch holes spaced 18 inches apart in staggered rows gave good control when squash plants were used as test material. The author gives no other details of the experiment. R.T.L.

412—Semana Médica.

- a. FERRARI, R. C., 1943.—“A propósito de un artículo sobre tratamiento de los quistes hidatídicos de pulmón.” Año 50, 2 (47), 1232-1234.

413—Sewage Works Journal.

- a. CRAM, E. B., 1943.—“The effect of various treatment processes on the survival of helminth ova and protozoan cysts in sewage.” 15 (6), 1119-1138.

(413a) Cram shows that some of the modern methods of sewage disposal do not destroy parasitic eggs and cysts. *Ascaris* and hookworm eggs can pass unchanged through the settling tanks and survive activated sludge treatment: viable eggs may appear in dried sludge. Heating of dried sludge to a suitable temperature will destroy *Ascaris* eggs. Certain protozoan cysts however can be destroyed by chemical precipitation and removed by a sand filter. They cannot withstand the processes involved in digestion of sludge. P.A.C.

414—Sheep Breeder.

- *a. BRIGGS, H. M. & SMITH, H. C., 1943.—“Why feed stomach worms?” 63 (1), 8-19.
*b. SARLES, M. P. & FOSTER, A. O., 1943.—“Nodular worm disease of sheep.” 63 (5), 8, 21-22.

(414a) There is little to choose between the several methods of giving phenothiazine. The tests recorded here show that its efficacy against *Haemonchus contortus* ranges from 99.7% to 100%. [From Biol. Abstr., 18, Abstract No. 3763.] R.T.L.

(414b) The economic importance of *Oesophagostomum columbianum* is discussed. Several methods of administering phenothiazine are summarized, and control by pasture rotation and other sanitary measures are discussed. [From Biol. Abstr., 18, Abstract No. 3776.] R.T.L.

415—Sheep and Goat Raiser.

- *a. BOUGHTON, I. B., 1943.—“Phenothiazine-salt mixture for range sheep.” 24 (3), 66, 68.

(415a) Boughton finds that a phenothiazine-salt lick, in a 1:9 ratio, is useful as a control of stomach worms in sheep in hot dry summers. But in warm wet weather individual treatment will probably also be necessary. There is no evidence that continuous licking of phenothiazine causes any toxæmia, but staining of the fleece may occur. The egg production of the helminths which survive the drug is lowered, and of the eggs which are passed, a very large percentage fail to develop. P.A.C.

416—Skandinavisk Veterinär-Tidskrift.

- a. HERMANSSON, K. A., 1943.—“Några erfarenheter vid mikroskopisk undersökning av rävkött på trikiner.” 33 (5), 281-302. [In Swedish: English summary pp. 301-302.]

(416a) Hermansson found *Trichinella* in 7 of 16 wild foxes and 277 of 7,025 foxes from fur-farms, examined in Sweden. *Trichinella* is spread among foxes by the use of wild fox carcasses as food on fox farms, and by the cannibalism known to exist among both wild and commercially-bred foxes. It is stated that a special examination of 3 of the animals showed no definite predilection sites, although large numbers of *Trichinella* larvae were found in the anterior tibial muscle of all 3 foxes. Larvae were not destroyed in infected meat kept for 6 days at -20°C.: after 26 days, however, all larvae were dead. Hermansson concludes that foxes, and not pigs or rats, are primarily responsible for the dissemination of trichinelliasis. A.E.F.

417—South African Journal of Science.

- a. ORTLEPP, R. J., 1943.—“Helmint spesifisiteit.” 40, 57-67.

(417a) The author traces the presence or absence of specificity in the members of the various groups of helminths. In the trematodes he concludes that there are clear indications of specificity, but that in most cases it is confined to closely related groups of hosts and not so

much to any particular species of host. In the cestodes the clearest cases of specificity are found especially among the Cyclophyllidea of birds; in most of the other cestodes indications of specificity are present, certain types or species being found in specific hosts or in closely related host groups. Among the nematodes some worms exhibit a very high degree of specificity, while others appear to have adapted themselves to various kinds of hosts. The struggle for existence, in which the parasite aims at preserving itself by not confining its life-cycle to only one species of host, is probably the reason for those cases where the specificity is not absolute.

R.J.O.

418—Svensk Veterinärtidskrift.

- *a. HÜLPHERS, G. & HENRICSON, T., 1943.—“Undersökningar på förekomst av infektionsämnen och trikiner hos råttor.” 48, 245.

(418a) Hülphers & Henricson report that 476 rats examined in Sweden were all negative for *Trichinella*. From April to December, 1942, 2.45% of foxes and 1.95% of badgers were found to be infected. It is concluded that foxes and badgers, and not rats, play an important part in the transmission of *Trichinella* to pigs. [From an abstract in Z. Fleisch- u. Milchhyg., 54, p. 19.]

A.E.F.

419—Tasmanian Journal of Agriculture.

- a. RYAN, A. F., 1943.—“Worms in horses.” 14 (3), 98–100.

420—Technical Bulletin. Minnesota Agricultural Experiment Station.

- a. OLSEN, O. W. & FENSTERMACHER, R., 1943.—“The helminths of North American deer with special reference to those of the white-tailed deer (*Odocoileus virginianus borealis*) in Minnesota.” No. 159, 20 pp.

(420a) Olsen & Fenstermacher record 6 species of helminths from 95 deer examined in northern Minnesota. The commonest species were *Fascioloides magna* and *Cysticercus tenuicollis*. A key to helminths reported from North American deer and a table for the identification of larvae and ova are included.

A.E.F.

421—Tierärztliche Rundschau. [See also Deutsche Tierärztliche Wochenschrift. Tierärztliche Rundschau.]

- a. BUGGE, G., 1943.—“Zum Vorkommen des *Agamodistomum suis* beim Schwein.” 49 (3/4), 17–22.

(421a) Bugge states that large numbers of *Agamodistomum suis* occur free in the abdominal cavity of both wild and domestic pigs. A few small *Agamodistomum* cysts are found in the peritoneum of the gastro-intestinal tract (including the omentum), liver, lungs, and pulmonary lymph nodes. Many foci are present in the subperitoneal and subpleural fatty tissue. Cysts also occur in the musculature beneath the subperitoneal fatty tissue.

A.E.F.

422—Transactions and Proceedings of the Royal Society of New Zealand.

- a. RICHARDSON, L. R., CLARK, A. E. & RALPH, P. M., 1943.—“Studies on the Entozoa of man in New Zealand. Part 1. A preliminary note on the results from the examination of inmates of a mental hospital.” 73 (3), 239–247.
b. RICHARDSON, L. R., CLARK, A. E. & RALPH, P. M., 1943.—“Studies on the Entozoa of man in New Zealand. Part 2. Results from the examination of a small number of non-clinical individuals.” 73 (3), 248–249.

(422a) Of 100 inmates of a North Island mental hospital in New Zealand, 7% were infected with *Enterobius vermicularis* and 27% with *Trichuris trichiura*. The total incidence of helminths was 30%.

R.T.L.

(422b) Of 25 non-clinical individuals, two, less than 10 years old, were infected with *Enterobius vermicularis*.

R.T.L.

423—Transactions of the Royal Society of South Australia.

- a. JOHNSTON, T. H. & MAWSON, P. M., 1943.—“Remarks on some nematodes from Australian reptiles.” 67 (2), 183-186.
- b. JOHNSTON, T. H. & MAWSON, P. M., 1943.—“Some nematodes from Australian elasmobranchs.” 67 (2), 187-190.
- c. JOHNSTON, T. H. & BEST, E. W., 1943.—“Australian Acanthocephala. No. 4.” 67 (2), 226-230.

(423a) Johnston & Mawson redescribe *Oswaldofilaria chlamydosauri* found in Queensland and have worked out a key for the identification of reptilian Filariidae. There are remarks on the life-history, part of which is passed in *Culex fatigans*. *Thamugadia physignathi*, *Pharyngodon* sp., *P. kartana*, *Strongyluris paronai* and *Physaloptera gallardi* were all met with in this collection of material. P.A.C.

(423b) A collection of helminths from elasmobranch fishes dissected at Melbourne yielded 6 helminth species, 4 of them being new: *Cucullanus heterodonti* n.sp. from *Heterodontus philippi*, *Proleptus trygonorrhinae* n.sp. from *Trygonorrhina fasciata*, *Paraleptus australis* n.sp. from *H. philippi* and *Mustelus antarcticus*, and *Paranisakis australis* n.sp. from *Urolophus testaceus*. There was also a species of *Phlyctainophora* and *Echinocephalus spinosissimus*. P.A.C.

(423c) Johnston & Best describe *Gordiorhynchus bancrofti* n.sp. from *Ninox strenua*, and *G. falconis* n.sp. from *Falco berigora*, Acanthocephala from Australian birds. *Prosthorhynchus menuræ* from the lyre bird *Menura novaehollandiae* is redescribed. P.A.C.

424—Turtlox News.

- *a. WHITE, F. M., 1943.—“The hydatid worm.” 21, 129-131.

425—University of Wyoming Publications.

- a. SCOTT, J. W., 1943.—“A new lungworm from the Leporidae, *Protostrongylus sylvilagii*, n.sp.” 10 (6), 57-71.

(425a) Scott describes *Protostrongylus sylvilagii* n.sp., a parasite of the lungs of various rabbits in southeastern Wyoming. A key for the easier identification of species of *Protostrongylus* is appended. The new species can be identified from the length of the spicules and gubernaculum; the absence of a provagina and the size of the ova are also useful characteristics. Infection may be so severe as to assume epidemic proportions. There is an extensive destruction of lung tissue and death may occur from verminous pneumonia. Development outside the host is unknown. P.A.C.

426—Veterinarski Arhiv.

- *a. DELAK, M., 1943.—“Ein Beitrag zur Kenntnis der anthelmintischen Wirkung von Tetrachloräthylen und Tetrachlormethan.” 13, 9.

(426a) *In vitro* experiments showed that a 0.001% dilution of carbon tetrachloride or tetrachlorethylene in Bunge solution killed horse ascarids after prolonged immersion. In a concentration of 0.01%, carbon tetrachloride killed in 23 hours and tetrachlorethylene in 25 hours. Both drugs have an initial stimulating effect followed by a prolonged period of narcosis. [From an abstract in Dtsch. tierärztl. Wschr. Tierärztl. Rdsch., 51/49, 255.] A.E.F.

427—Vida Nueva.

- *a. FERRER CROS, O., 1943.—“Tratamiento de la strongyloidiasis con atebrina (trabajo preliminar: 10 casos).” 52, 146-155.
- *b. MESA RAMOS, J. D., 1943.—“Cisticercosis.” 52, 244-247.

428—Wasmann Collector.

- *a. MORGAN, B. B., 1943.—“The Physaloptera (Nematoda) of rodents.” 5 (3), 99-106.

(428a) The five species *Physaloptera getula* (syn. *P. bispiculata*), *P. massino* (syn. *P. spinicauda*), *P. muris-brasiliensis*, *P. torresi* and *P. aduensis*, are accepted as valid parasites of rodents. A world parasite-host list is given. [From Biol. Abstr., 18, Abstract No. 1852.] R.T.L.

429—West Virginia Medical Journal.

- *a. FENTON, C. C., 1943.—“Hookworm.” 39 (10), 341-344.
- *b. RIETZ, J. H., 1943.—“Parasites of livestock in the tropics.” 39 (10), 345.

(429b) Direct sunlight, torrential rains and long periods of drought are adverse factors in the spread of helminth infections of livestock in Cuba, where the incidence of these infections is not greater than in the U.S.A. The parasites of horses in Panama and in Puerto Rico are identical with those of the United States. [From Biol. Abstr., 18, Abstract No. 1803.] R.T.L.

430—Zeitschrift für Fleisch- und Milchhygiene.

- a. CLEVISCH, 1943.—“Trichinenfunde bei Füchsen.” 53 (8), 79.
- b. SILLIG, 1943.—“Trichinenfund bei Silberfüchsen in Thüringen.” 53 (8), 79.
- c. ANON, 1943.—“Ein trichinöser Fuchs bei 6000 untersuchten Füchsen.” 53 (10), 98.
- d. BUGGE, G., 1943.—“Der Muskelegel Dunckers beim Dachs.” 53 (11), 101-102.
- e. WINTER, R., 1943.—“Trichinenfunde bei Füchsen und Dachsen.” 53 (11), 110.
- f. MÜLLER, 1943.—“Trichinen und Finnen, parasitäre Feinde unserer Wehrmacht im Osten.” 53 (12), 117-118.
- g. KOLLER, R., 1943.—“Die Fluoreszenz einiger Parasiten im Fleische.” 53 (19), 185-186.
- h. MEYER, R., 1943.—“Zur Statistik der Fleischvergiftungen im Jahre 1942.” 53 (22), 211-214.
- i. KRAUSE, A., 1943.—“Beitrag zur Aufbewahrung trichinösen Fleisches für Lehrzwecke.” 53 (22), 214-215.
- j. SCHÖNBERG, 1943.—“Zum Vorkommen von *Cysticercus inermis* in der Schlundmuskulatur des Rindes.” 53 (24), 237-238.
- k. BUGGE, G., 1943.—“Zu den Formen des Muskelegels beim Schwein in den Trichinenkompressorien.” 54 (3), 21-24.

(430a) Of 334 foxes examined at the Cologne slaughter-house between November, 1941, and November, 1942, 5 were positive for *Trichinella*. The tongue and masseters were most heavily infected, the abdominal musculature showing the lightest infection. All the infected foxes were wild; no animals from fox farms were positive. A.E.F.

(430b) Sillig reports that 5 silver foxes of a number [figures not given] examined were infected with *Trichinella*. In one case the usual examination was negative, but a further inspection of the masseters showed *Trichinella* to be present. A.E.F.

(430c) Of 6,000 silver and blue foxes examined at a fox farm, only one was positive for *Trichinella*. A photograph of a capsule recovered shows it to be well-formed and circular. A.E.F.

(430d) Bugge records for the first time *Agamodistomum suis* from the musculature and fatty tissue of the badger. A.E.F.

(430e) During 1941 and 1942, 138 foxes and 3 badgers were examined for *Trichinella* at Mittweida [Saxony]: 10 foxes and 1 badger were positive. Of the foxes 2 were wild, and 8 came from the same fox farm. A.E.F.

(430g) Exposure to ultra-violet rays causes a pronounced red fluorescence in living *Cysticercus cellulosae* and *C. bovis* which facilitates their identification. Calcified cysticerci remain unaffected or show only weak fluorescence. Other parasites of domestic animals, including larval stages of all other cestodes, show no fluorescence. A.E.F.

(430h) In the course of his survey of outbreaks of food poisoning in Germany in 1942 Meyer records that there were 85 cases of trichinelliasis with 8 deaths. The majority of cases occurred in the “annexed eastern territories”: in all cases the source of infection was uninspected meat from these territories. A.E.F.

(430i) For preserving trichinous meat for teaching purposes Krause recommends a 4% aqueous solution of sodium benzoate. Each piece of meat should be kept in a separate jar. Care must be taken to ensure that the meat is completely covered by the solution, and in order that it touches neither the sides nor the bottom of the jar, the meat should be hung by a thread fixed to the lid. The solution should be changed after the first 24 hours, again after 48 hours, and thereafter every 3 months. Using this technique Krause found that meat was well preserved after more than a year. A.E.F.

(430k) Bugge shows that the muscle fluke [*Agamodistomum suis*] encysts in the musculature and fatty tissue of the pig. The host capsule is not so resistant as that of *Trichinella* larvae, and when press preparations are made for examination in the *Trichinella* compressorium, the capsule usually bursts and the flukes are seen free in the surrounding fluid. By exercising special care in preparation and examination Bugge has found flukes within host-capsules in the musculature: he reproduces several microphotographs. A.E.F.

431—Zeitschrift für die Gesamte Kälte-Industrie.

- a. LANG, O., 1943.—“Energieersparnis bei der Behandlung von finnigem Fleisch in Gefrieranlagen.” 50 (4), 46-48.

(431a) Lang describes in some detail a refrigeration and cold storage plant for ensuring that measly meat is made fit for human consumption, in conformity with German regulations. Both space and labour are saved by having separate freezing and cold storage chambers. A.E.F.

432—Zeitschrift für Immunitätsforschung und Experimentelle Therapie.

- a. SCHREIBER, W., 1943.—“Tierversuche zur Chemotherapie der Trichinose.” 104 (2/5), 126-134.

(432a) Schreiber has tested a number of drugs on guinea-pigs and white rats experimentally infected with *Trichinella*, to determine their influence on the development of the disease. The substances tested were: tartar emetic, stibenyl, stibosan, antimosan, Fouadin, Bismuto-Yatren, phenocoll, colloidal iron, colloidal copper, and various dyes. All gave negative results. The favourable effects ascribed to Fouadin treatment by recent workers are possibly due to a purely antitoxic action and to the fact that the natural resistance of the organism is increased. A.E.F.

433—Zeitschrift für Infektionskrankheiten, Parasitäre Krankheiten und Hygiene der Haustiere.

- a. MATOFF, K., 1943.—“Ueber die Verbreitung der Jungtrichinen durch die Vena portae.” 60 (1/2), 113-142.

(433a) Matoff has found *Trichinella* embryos in the portal veins of 14 out of 18 guinea-pigs, and in 20 out of 21 rabbits, experimentally infected. The numbers found in individual animals varied between 1 and 247. Embryos were also recovered from the liver and the hepatic blood. It is probable, though not finally proved, that the portal vein is the chief blood route for embryos liberated into the intestine. The considerable numbers of embryos recovered from the mesenteric lymph nodes confirm that the lymph vessels are the chief distribution route for the embryos. A.E.F.

434—Zeitschrift für Veterinärkunde.

- *a. PETERS, 1943.—“Beitrag zur Wurmbehandlung der Truppenpferde.” 55 (1), 27-28.

(434a) Peters found “Tetra-Spezial” Marienfelde [containing 88% carbon tetrachloride] to be efficient against all intestinal parasites in horses, except strongyles. The dosages were: foals, 30 c.c.; 1 to 2-year-olds, 40-50 c.c.; older horses, 60-80 c.c. The drug was given in a litre of warm water by nasopharyngeal sound. Fasting is not necessary. The treatment is not suitable for well fed, fat animals. A single dose of “Allegan” reduced strongyle infections by 90%. [From an abstract in Dtsch. tierärztl. Wschr. Tierärztl. Rdsch., 51/49, 155.] A.E.F.

435—Zentralblatt für Allgemeine Pathologie und Pathologische Anatomie.

- *a. BRANDT, M., 1943.—“Zur Kasuistik des Echinococcus alveolaris.” 81, 353.

436—Zentralblatt für Bakteriologie. Abteilung 1. Originale.

- a. MATOFF, K., 1943.—“Altersimmunität und parenteral erzeugte Muskeltrichinose beim Hunde.” 150 (6), 328-336.

- b. SCHÜFFNER, W. & SWELLENGREBEL, N. H., 1943.—“Eine zweizeitige Methode zum Nachweis von *Oxyuris-Eiern*. Ihre Leistung gegenüber dem amerikanischen NIH-Wischer.” 151 (1), 71-80.

(436a) Matoff has succeeded in infecting adult dogs with *Trichinella* by intravenous, intraperitoneal or intramuscular injection of from 15 to 50 gravid worms, and by intramuscular injection of from 150 to 500 embryos. A total of 18 dogs, of ages from 1½ to 15 years, were used in these experiments, and in each case a definite infection of the muscles was produced. The age immunity, reported by earlier workers attempting oral infection, must therefore be confined to an intestinal phase. A.E.F.

(436b) Schüffner & Swellengrebel have devised a new method for diagnosing *Enterobius* infection. One end of a glass tube of about 10 cm. in length is blown to a sphere of 1.75 cm. diameter: this enlargement is ground. The peri-anal region is then massaged for about 15 seconds with the moistened spherical end of the tube. The egg-suspension which adheres to the tube is transferred to a slide and can be examined immediately. If desired, however, the specimen can be dried and examined at any convenient time by applying a drop of cedar oil or liquid paraffin to the dry preparation. Advantages claimed for this new technique over the NIH swab method of M. C. Hall [see *Helm. Abs.*, Vol. VI, No. 73a] are (i) that it is 3 times as rapid, (ii) that it reveals 3 times as many eggs, and (iii) that it causes less discomfort to the patient. A.E.F.

437—Zentralblatt für Chirurgie.

- a. RICHARD, A., 1943.—“Seltenen Fund in einem Processus vermiformis.” 70 (18), 637-638.

(437a) Richard reports the finding of a scolex and anterior segments of *Taenia saginata* in the lumen of a human appendix which he had removed. A.E.F.

NON-PERIODICAL LITERATURE

- 438—BARGER, E. H. & CARD, L. E., 1943.—“Diseases and parasites of poultry.” London, 3rd edit., 399 pp. [*Helminths* pp. 313-343.]

In this new edition the section on helminth diseases is not greatly altered. The latest information on treatment is added, particularly with regard to gapes and tapeworm infestation. There is also additional information on the susceptibility of chickens to infestation with *Ascaridia lineata* and *Heterakis gallinae*, describing mostly the more recent results obtained in Ackert's laboratory. P.A.C.

- 439—BIESTER, H. E. & DEVRIES, L., editors, 1943.—“Diseases of poultry.” Ames, Iowa, xv+1,005 pp.

In this book on poultry diseases, three chapters are devoted to helminths. The nematodes and cestodes have been written up by Wehr who gives a general description of the groups, followed by a list of parasites found in the United States, with their location, vector and definitive hosts. Each species is then dealt with separately—with sections on structure, life-history and pathology. The parasites are arranged according to their location within the body of the definitive host. Finally there are remarks on control, and a bibliography. The same general arrangement has been adopted by Price, who deals with the trematodes. All the species referred to are clearly figured. P.A.C.

- 440—BRUMLEY, O. V., 1943.—“A text-book of the diseases of the small domestic animals.” London, 4th edit., 422 pp.

- 441—*CABLE, R. M., 1943.—“An illustrated laboratory manual of parasitology.” Minneapolis, 112 pp. [Revised edition.]

- 442—CRAIG, C. F. & FAUST, E. C., 1943.—“Clinical parasitology.” London, 3rd edit., 767 pp.

- 443—FOSTER, A. O. & HABERMANN, R. T., 1943.—“Phenothiazine for the control of parasites of farm animals.” United States Department of Agriculture, 10 pp.

In an easily readable article, Foster & Habermann discuss the more important aspects of phenothiazine treatment of farm stock in the control of helminth infestation. General use and toxicity are first given, followed by specific information on its use for each type of farm animal: efficiency, dosage, methods of administration and toxicity all being considered for sheep, goats, cattle, horses, pigs and poultry. P.A.C.

- 444—GLASER, R. W., 1943.—“The germ-free culture of certain invertebrates.” In: Reynier, J. A., “Micrurgical and germ-free methods.” Springfield, Ill. & Baltimore, Md., pp. 164–184.

- 445—*GUENAU, 1943.—“Entomologia y parasitologia agricolas.” Barcelona, 2nd edit., 668 pp.

- 446—*KREX, L., 1943.—“Die Schistosomen der Tiere in Afrika.” Inaugural-Dissertation, Berlin.

This paper is a survey of the scattered literature on the schistosomes of domestic animals, and animals of economic importance, in Africa. Special attention is paid to the possible connection between schistosomiasis of man and domestic animals. Schistosomiasis in animals is almost exclusively limited to the portal and mesenteric veins. Pathological lesions are found in the intestine, liver, etc. Eggs are passed only in the faeces. The presence of the parasite in the pelvic vessels and pathological changes in the urogenital apparatus are very rare in animals. This typically intestinal condition is sharply contrasted with the vesicle infection in man with *S. haematobium*. The variability in the form of the eggs of *S. bovis* and *S. haematobium* provided with a terminal spine is of great importance in the question of relationship between infection in man and animals. In the many cases where schistosomes pathogenic to animals have been found in man Krex remarks that they have only been found in association with forms pathogenic to man. Bovine *Schistosoma* can produce eggs of the *haematobium* type and vice versa. Since the diagnosis in man of schistosomiasis pathogenic to animals is almost always based on urine examination, a false diagnosis can easily be made. Attention is drawn to the fact that in the biological experiments which have been published neither experimental infection of lambs with *S. haematobium* nor infection of man with *S. bovis* gave rise to infections. From this it must be concluded that the occurrence in man of schistosomes pathogenic to animals has not been proved. It is improbable that animals are a source of human schistosomiasis in Africa. [From an abstract in Dtsch. tierärztl. Wschr. Tierärztl. Rdsch., 52/50, 192.] R.T.L.

- 447—*MEEK, M. W., 1943.—“Diseases and parasites of rabbits and their control.” Montebello, California, 3rd edit., 189 pp.

- 448—*OELKERS, H. A., 1943.—“Pharmakologische Grundlagen der Behandlung von Wurmkrankheiten.” Leipzig, 154 pp.

- 449—*SCHIECK, P., 1943.—“Untersuchung des Blutes auf Mikrofilarien bei der Hämaturia vesicalis bovis.” Dissertation, Hannover.

- 450—*SCHWEITZER, E., 1943.—“Parasitenfunde gelegentlich der Fleischschau im ehemaligen Polen.” Dissertation, Hannover.

- 451—*WERNER, J., 1943.—“Untersuchungen über die Veränderung des Artenverhältnisses der Pferdestrongylien nach Santostibin-Gaben.” Dissertation, Hannover.

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In the Author Index there are no cross-references to show joint-authorship, but authors of joint papers are listed individually. Thus, a paper by "Brown, B., Jones, A. & Smith, J." would have three separate entries, "Brown, B.", "Jones, A.", and "Smith, J."

In the Index of Subjects, alphabetization is under the first word (e.g. "*Acer* sp." before "*Acerina* sp."). Under the generic name of a helminth the following order is observed: papers on the genus as such; papers on undefined species; papers on new and defined species, e.g.

Capillaria

— spp.

— *aerophila*

— *amarali* n.sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. *Anthelmintics* are listed under that word and also under the name of the parasite or disease.

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CORRIGENDA

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241h (Abstract) Lines 1, 2 & 6 For "*Fimbriariodes*" read "*Fimbriarioides*"